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Result
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
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             110
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1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
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length: 2000000000
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83.3
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 390729 seqs, 57163235 residues
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/SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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146
166
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                                                                                  Y79116
Y79114
Y79115
Y79128
Y79128
R40924
G36361
G36360
G36359
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                                                                          Peptide antagonist
Peptide antagonist
Peptide antagonist
Peptide antagonist
Peptide in able to bi
Arabidopsis thalia
Arabidopsis thalia
Arabidopsis thalia
                                                                                                                                                                                                                                                                                                               Description
Peptide antagonist
Eucalyptus grandis
Nitrile hydratase
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. 45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	32	32	32	32	32	ა ა	ω ω
71.4	71.4	71.4	71.4	•			71.4	•			•	71.4	•																				
240	240	240	240	240	240	240	240	240	240	240	240	240	240	165	165	154	116	8	80	8	1518	1516	963	553	117	117	264	242	238	77	œ	207	207
22	22	22	22	22	22	22	22	22	22	22	22	22	22	21	20	21	16	21	21	20	20	22	17	20	18	18	19	19	19	21	21	20	18
B46005	B46004	B46003	B46001	B46000	B45999	в45998	B45997	B45996	B45995	B45994	B45993	B45992	B45991	B44423	Y29528	в32388	R66349	Y79126	Y79113	Y16868	Y16099	B11435	R84082	Y35682	W09070	W09067	W82390	W82392	W82389	B54158	¥79112	22	W14160
-1 scFv	MUC-1	MUC-1 SCFV	-1 SCFV	MUC-1 SCFV	MUC-1 scfv	MUC-1 SCFV	-1 SCFV	-1 scFv	MUC-1 scFv	MUC-1 scFv	-1 scFv	MUC-1 scFv	1 SCFV	Human lung tumour-	lung tumo	Human secreted pro	munog Lobu	antagonis	Peptide antagonist	ock p	Acetobacter xylinu	C. albicans sterol	ermostable e	umoniae	Banana bunchy top	na bunchy top	saliva prote	saliva prote	aliva prote	Human pancreatic c	e antagon	pha chain of a	R. rhodochrous nit

ALIGNMENTS

05-JUN-2000 (first entry)

Y79116;

Y79116 standard; Peptide; 8 AA.

Peptide antagonist of zonulin.

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Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                  WPI; 2000-205565/18.
                                                                                                                                                          Synthetic.
                                                         (UYMA-) UNIV MARYLAND BALTIMORE.
                                                                             03-AUG-1998;
                                                                                                 28-JUL-1999;
                                                                                                                     17-FEB-2000.
                                                                                                                                        WO200007609-A1.
                                                                             98US-0127815.
                                                                                                 99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

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RESULT
Y79114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cy physiologically modulate the opening of mammalian tight junctions (TV). The peptide antagonists are based on a common motif of ZOT combinding. They can be prepared by chemical synthesis or by use of cantinflammattory agents in the treatment of gastrointestinal common motif of ZOT combinant DNA techniques. The peptide antagonists are used as an common material synthesis or by use of cantinflammattory agents in the treatment of gastrointestinal continuous properties and yet does not physiologically modulate the opening of TJ in the contract of the strine. Gastrointestinal inflammation conditions give rise to compare they bind to the ZOT receptor in the intestine caused by infection, e.g. Clostridium difficule infection, contesting intestinal conditions that cause protein losing enteropathy contesting infection, e.g. Clostridium difficule infection, contesting infection, bacterial overgrowth, whipple sidesase, disease, disease, disease, olitis, inflammatory bowel disease, disease, disease, disease, disease, contesting correction of congenital heart disease with Fontan's operation, concerning the micropality concerning the mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, concerning the micropality disease, without ulceration, e.g. Menetrier's disease, cosinophilic gastroenteritis, and immune diseases, cosinophilic gastroenteritis, primarily to micropal disease, essimphilic gastroenteritis, primarily to micropal disease, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
(UYMA-) UNIV MARYLAND BALTIMORE.
                                                             03-AUG-1998;
                                                                                                                   28-JUL-1999;
                                                                                                                                                                                                                                WO200007609-A1
                                                                                                                                                                                                                                                                                                               neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                         Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective;
                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y79114 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GRGLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        grglvqdg 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,
                                                     98US-0127815.
                                                                                                          99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence is that of a peptide antagonist 25 such peptides (see Y79105-29) of the interpretation a zonula occludens toxin (ZOT) receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 42; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cerebral edema, gastritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the invention, receptor, yet do not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
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x \neq 0
                                                                  CC (TU). The peptide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor CC indiang. They can be prepared by chemical synthesis or by use of CC antiinflammatory agents in the treatment of gastrointestinal CC inflammation, where they bind to the ZOT receptor in the intestinal CC and yet does not physiologically modulate the opening of Ty in the CC increased intestinal conditions that cause protein loss useful for CC treating intestinal conditions that cause protein losing enteropathy CC caused by infection, e.g. Clostridium difficile infection, conference infestation, bacterial overgrowth, whipple's disease, diseases with CC infestation betruction, e.g. congenital intestinal sparasite CC infestation betruction, e.g. congenital intestinal sparasite correction of congenital heart disease, diseases marked by Sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, collisions without ulceration, e.g. wenettier's disease, e.g. systemic lupus exythematosus or food allernies and immune diseases'
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 44; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fasano A;
                                                             systemic lupus erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-205565/18
  8
AA;
                                                      JO,
                                                      food allergies,
                                                      primarily
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RESULT
Y79115
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Thes 7; Conserve
                                                                 Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antialler.
WO200007609-A1
                            Synthetic
                                                 gastrointestinal inflammation;
                                                                                                                                         Peptide antagonist of zonulin.
                                                                                                                                                                         05-JUN-2000
                                                                                                                                                                                                    Y79115;
                                                                                                                                                                                                                        Y79115 standard; Peptide;
                                                                                                                                                                                                                                                                                          1 GRGLVQDG 8
                                                                                                                                                                                                                                                       ω
                                                       immunosuppressive; antiparasitic; vasotropic
                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                         88.1%;
87.5%;
                                                                                                                                                                                                                         œ
                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                      Score 37; [
Pred. No. 3.
                                             therapy
                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                                                                                      .2e+05;
                                                                  antiallergic;
                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                      0,:
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17-FEB-2000 28-JUL-1999;

99WO-US16683

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 7
                                                    Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                   05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y9105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 44; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-205565/18
                                                                                                                                                                                            Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                            Y79128 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity hes 7; Conserv
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ind human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of crecombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine cand yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, e.g. clostridium difficile infection, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, parasite collagenous colitis, inflammatory bowel disease, diseases marked by implantic obstruction, e.g. congenital intestinal lymphanglectasia, carcoidosis lymphoma, mesenteric tuberculosis, and after surgical corrections of symphoma, mesenteric tuberculosis, and some surgical corrections of symphoma, mesenteric tuberculosis, and some surgical corrections.
                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local Similarity
                                                                                                                  17-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          which bind to a zonula occludens toxin (20T) receptor, y physiologically modulate the opening of mammalian tight (TJ). The peptide antagonists are based on a common mot and human zonulins, which is believed to be critical for
                                Human Immunodeficiency Virus
                                                 Antibodies;
                                                                                  Protein able
                                                                                                                                                     R40924;
                                                                                                                                                                                    R40924
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 48; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UYMA-) UNIV MARYLAND BALTIMORE
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                                                antigen binding proteins; library;
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                                                                                to bind to HIV-1 tat protein.
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Pred. No. 3.2e
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                                                                                                                                                                            Arabidopsis thaliana.
                                                                                                                                                                                           Protein identification; signal transduction pathway; metabolic hybridisation assay; genetic mapping; gene expression control; termination sequence.
                                                                                                                                                                                                                                      Arabidopsis thaliana protein fragment SEQ ID NO: 44549.
                                                                                                                                                                                                                                                                                                               G36361 standard; Protein; 146 AA.
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                                                                                                                                                                                                                                                                                                 G36361;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antigen-binding proteins and corresp. synthetic genes - are constructed synthetically and used to make antibody library, in disease diagnosis, etc.
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N-PSDB; Q48605.
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99US-0145145. 99US-0145218. 99US-0145224. 99US-0145224. 99US-0145276. 99US-0145913. 99US-0145918. 99US-0145919. 99US-0145919.

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RESULT
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This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not (TJ). The peptide antagonists are based on a common motif of 20T binding. They can be prepared by chemical synthesis or by use of antinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                     New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                              Claim
                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                              Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                           Fasano
                                                                                                                                                                                                                                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                        03-AUG-1998;
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                                                                                                                                                      Page 42; 69pp; English.
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RESULT
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A79263 to A79736 and B25100 to B25570 represent polynucleotide and protein sequences isolated from eucalyptus (Eucalyptus grandis) or pir (Pinus radiata also known as Monterey pine). The protein sequences are involved in cell signalling. The polynucleotide and protein sequences can be used to modify the response of plant cells to external signals e.g. environmental changes or pathogens during the growth and develope of a plant. They can be used to modify cell proliferation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, esg. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                           Isolated polynucleotide encoding a polypeptide involved in cell signaling used for generating transgenic plants with modified r to external signals -
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01-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eucalyptus grandis; Pinus radiata;
plant cell signalling; modulation;
environmental change; development;
elongation; survival; disease resis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropal caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                              Strabala TJ,
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                                                                                                                                                                                                    224; 527pp; English
                                                                                                                                                                                                                                                                                                                                                                                                              Nieuwenhuizen
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99US-0162866
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                & DEV CORP
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   involved protein SEQ
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3.2e+05;
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RESULT
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Best Local
                                                           sp. N-774 and Rhodococcus rhodochrous J-I.
Plasmid pYUK121 contg. nitrile hydratase gene derived from Rhodococcus sp. N-774 is prepd. from a JM105/pYUK121 culture. pYUK121 DNA is digested with SphI and Sali. This fragment contains the nitrile hydratase gene which is radiolabelled for use as probe.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        differentiation, elongation and survival, resistance to disease and nutrient metabolism. Examples of modifications which can be produced are altered fruit ripening and senescence of leaves and flowers e.g. to delay senescence and prolong the life of cut flowers or enhance senescence of reproductive organs to engineer sterile plants. Other modifications can be used to delay senescence in selected cell types or organs providing fruit and vegetables which have a longer shelf life between harvest and consumption, or to decrease branching frequency in forest tree species giving long stretches of valuable knot-free clear wood which can be used in solid timber furniture and veneers.
                                                                                                                      A DNA probe is prepd. from JM105/pYUK121 (FERM BP-1937) described JP-A-2-119778/1990 due to the high degree of homology in the amino sequence between the nitrile hydratase beta subunit of Rhodococcus
                                                                                                                                                                                                               rhodochrous J-I, used t
                                    beta subunit
                                              hydratase gene which is radiolabelled The NH gene encodes an alpha subunit a
                                                                                                                                                                          Disclosure; Page 20-23;
                                                                                                                                                                                                  of e.g. benzonitrile
                                                                                                                                                                                                                                                                WPI; 1991-268533/37.
                                                                                                                                                                                                                                                                                                                 (NITT ) NITTO
                                                                                                                                                                                                                                                                                                                                           28-FEB-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Rhodococcus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nitrile hydratase alpha subunit.
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nes 6; Conserv
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|rgllqdg
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                                                                                                                                                                                                                                                     Q13618
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                        Q13618-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169
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                                  encodes an alpha subunit as represented in R13898.
                                                                                                                                                                                                                                                                                          Hideaki
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                                                                                                                                                                                                                                                                                                                   CHEM IND KK
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                                                                                                                                                                                                                                                                                                                                                                                                                                            N-774.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
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                                                                                                                                                                                                               s of nitrile to produce r
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Pred. No.
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intermediate;

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RESULT
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Best Local
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Best Local Similarity
""" 6; Conserv
                                                                                                                                                                                This is the amino acid sequence of the nitrile hydratase alpha subunit from Rhodococcus rhodochrous strain IFO15564. The coding sequences were isolated by screening a genomic R. rhodochrous DNA library in EMBL3 amplified a 0.7 kb fragment of the amidase gene. The library screen isolated a phage containing a 15 kb insert. When analysed, the insert containing the open reading frames for the amidase gene (5287) inlitrile hydratase alpha and beta subunits and another open reading frames for the amidase gene (763385), the encoding a 399 amino acid protein (W14162) of unknown function. The enzymes, prepared by genetic engineering methods, can be used in the industrial production of useful compounds.
                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                  Rhodococcus rhodochrous nitrile hydratase and amidase genes useful for the industrial preparation of useful cpds
                                13
                                                             32 gkglvpdg
                                                                                                                Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CHCC ) CHISSO CORP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JP09009973-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rhodococcus rhodochrous; amidase; probe; amplification; primer; PCR; polymerase chain reaction; phage; open reading frame; nitrile hydratase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rhodococcus rhodochrous
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                                                                                      1 GRGLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                 2; Page 7-8; 16pp; Japanese.
                                                                                                                                                                         207
                                                                                                            Conservative
                                                                39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note- "encoded by codon
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                                                                                                                       78.6%;
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75.0%;
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Pred.
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Pred. No.
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Mismatches
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No.
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68;
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Y79112
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Best Local S
Matches 6
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                      Peptide antagonist of zonulin.
                                                                  Zonulin;
                                                                                                                  05-JUN-2000
                                                                                                                                                          Y79112 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                         The specification describes the production of halogenated benzamides by enzymatic hydrolysis of halogenated benzonitriles using a Brevibacterium nitrile hydratase. This enzyme is a tetrameric enzyme comprising 2 alpha and 2 beta chains. The present sequence represents is derived (strain R312 or its mutant A4) have higher activity for thydrolysing halogenated benzonitriles than for hydrolysing benzonitrile. The method is especially for preparing 2,6-difluorobenzamide, which is an intermediate for insecticides, especially diflubenzuron.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Halogenated benzamide production - by halogenated benzonitrile hydrolysis with Brevibacterium nitrile hydratase enzyme
                                                                                                                                                                                         14
                                                                                                                                                                                                                         32 gkglvpdg 39
                                                                                                                                                                                                                                                                         Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Halogenated benzamide; enzymatic hydrolysis; halogenated benzonitrile; Brevibactorium; nitrile hydratase; tetrameric enzyme; alpha chain; beta chain; strain R312; mutant A4; 2,6-difluorobenzamide; intermediat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alpha chain of a a Brevibacterium nitrile
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                                                                                                                                                                                                                                                                                  78.6%;
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Pred. No.
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                                                                                                                                                                                                                                                                              68;
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XY 09-MAR
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XX Human;
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Best Local Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                          recombinant DNA techniques. The peptide antagonists are used as an attininflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoldosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with fontan's operation, mucosal disease, eosinophilic gastroenteritis, and immune disease, e.g. systemic lupus erythematosus or food allergies, primarily to
Human; pancreas; pancreatic cancer; pancreatic cancer antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 43; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-FEB-2000
                                  Human pancreatic cancer antigen protein sequence SEQ ID NO:610.
                                                                        09-MAR-2001
                                                                                                                                           B54158 standard;
                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                    76.28;
87.58;
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                                                                                                                                                                                                                                                                                                                    Score 32;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                     DB 21;
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                                                                                                                                                                                                                                                                                                                                   Length 8;
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1 GRGLVQD 7 |||||:| 59 grglvrd 65

Query Match Best Local S Matches 6

6; Conserv

Conservative

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Score 32; DB Pred. No. 39; 1; Mismatches

39;

21; Length 77 Indels

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partners to the proteins and the activity of the proteins can be identified. The pancreatic cancer antigens can be used to detect, treat or prevent pancreatic disorders, especially cancer. Agonists and antagonists to the antigens can be screened for. The pancreatic cancer antigen polynucleotides can be used to design nucleic acid hybridisation probes that can be used in chromosome mapping, linkage analysis, tissue identification and/or typing and a variety of forensic and diagnostic methods. The proteins can be used to generate antibodies which are used to purify, detect and target the polypeptides, including both in vivo and in vitro diagnostic and therapeutic methods. The proteins can be used to treat or prevent neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal or proliferative disorders. C99232 to C99240 and B54467 represent sequences used in the exemplification of the present intention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunomodulatory, relaxant, contraceptive, gynaecological, card antiinflammatory activities, and can be used in gene therapy. T polynucleotide and proteins can be used for preventing, treatin ameliorating a medical condition or in assays for diagnosing a pathological condition or a susceptibility to one in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 called pancreatic cancer antigens, given in B4008 to B54066 pancreatic cancer antigens have cytostatic, neuroprotective, immunomodulatory, relaxant, contraceptive, gynaecological, contiinfiammatory activities, and can be used in gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid that is a pancreatic cancer antigen for preventing, treating, or ameliorating a medical condition, particular pancreatic cancer, or for use in assays for diagnosing a pathological condition
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Sequence
                                                                                                  exemplification of the present invention
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ALIGNMENTS

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A; Molecule type: DNA A; Molecule type: DNA A; Residues: 1-288 <SCH> A; Residues: 1-288 <SCH> A; Cross-references: EMBL: AL353820; GSPDB: GN00112; NCSP:13E11.10 A; Experimental source: cosmid contig 13E11; Strain 74 C; Genetics: Cosmid contig 13E11; Strain 74 C; Genetics: Committee: Committee: Committee: Committee: C; Genetics: 
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T48753
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Best Local Similarity
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C:Superfamily: SH2 homology
C:Keywords: phosphoprotein
F:326-334/Region: proline-rich
F:326-334/Region: proline-rich
F:384-478/Domain: SH2 homology <SH2>
F:11,14.18/Binding site: phosphate (Ser) (covalent) #status predicted
F:296,351,481/Binding site: phosphate (Tyr) (covalent) #status predicted
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C;Species: Homo sapiens (man)
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_chang
                                                                                                                                                                                                                                                                                                                                                                             submitted to the Protein S
A; Reference number: Z24541
A; Accession: T48753
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R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Neurospora crassa
C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 05-May-2000
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A; Residues: 1-540 <POU>
A; Cross-references: EMBL: AL049924
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A; Map position: 2
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A; Accession: T08662
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                                             A; Gene: NCSP:13E11.10
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A; Introns: 197/2
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A; Note: sequence extracted rrow work case C; Superfamily: DNA-directed RNA polymerase
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A;Note: sequence extracted from NCBI backbone (NCBIP:118227)
C;Superfamily: DNA-directed RNA polymerase II RPB7 chain
                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-176 <ULM>
                                                                                                                                                                                                                         A;Status: preliminary; not compared with conceptual translation
                                                                                                                                                                                                                                                                 K;Ulmasov, T.; Guilfoyle, T.J.
J. Biol. Chem. 267, 23165-23169, 1992
A;Title: Sequence of the fifth largest subunit of RNA polymerase
A;Reference number: A44457; MUID:93054645
                                                                                                                                                                                                                                                                                                                                               RNA polymerase II fifth largest subunit - soybean
C:Species: Glycine max (soybean)
C:Date: 04-Sep-1998 #sequence_revision 04-Sep-1998 #text_change:
                                                                                                                                                                                                                                                                                                                                     R;Ulmasov,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: EMBL:D64004; GB:AB001339; NID:g1001701; PIDN:BAA10612.1; PID:g100177 A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996 C:Superfamily: Escherichia coli ABC transporter mdlA; ATP-binding cassette homology C:Keywords: ATP; P-loop F:356-548/Domain: ATP-binding cassette homology <ABC>F:373-380/Region: nucleotide-binding motif A (P-loop)
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                                                                                           Query Match
Best Local
                                                                        Matches
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C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr:1997 #sequence_revision 25-Apr:1997 #text_change 20-Jun-2000
C;Accession: S76668
R;Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miy
O, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada,
DNA Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-580 <KAN>
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A;Accession: S76668
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les 5; Conserv
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62.5%;
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75.0%;
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Pred. No.
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Pred. No. 18;
1; Mismatches
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Pred. No.
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                                                                                         DB 2;
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                                                                                     Length 176;
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                                                                                                                                                                                                                                                                            II from
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                                             Gaps
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da, M.; Yasuda
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Score 34; Pred. No.

DB 74;

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F:1035-1115/Domain: fibronectin type III repeat homology F:1130-1338/Domain: fibrinogen beta/gamma homology <FBG-F:1272-1286/Region: calcium binding #status predicted F:53,197,277,391,469,580,734,790,960,1031,1041,1256,1342,
                                                                                                                                                                                                                                                                                                                                                            F;334-405/Domain: fibronectin type III repeat homology <FN1>
F;413-494/Domain: fibronectin type III repeat homology <FN2>
F;502-584/Domain: fibronectin type III repeat homology <FN3>
F;592-676/Domain: fibronectin type III repeat homology <FN3>
F;594-764/Domain: fibronectin type III repeat homology <FN4>
F;772-83/Domain: fibronectin type III repeat homology <FN6>
F;861-941/Domain: fibronectin type III repeat homology <FN6>
F;861-941/Domain: fibronectin type III repeat homology <FN7>
F;949-1027/Domain: fibronectin type III repeat homology <FN8>
F;949-102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: protein
A; Molecule type: protein
A; Molecule type: protein
A; Residues: 579-586;827-840 <NOEI>
C; Comment: This protein is a neural extracellular matrix protein implicated in neural C; Superfamily: restrictin; EGF homology; fibrinogen beta/gamma homology; fibronectin C; Keywords: calcium binding; cell adhesion; duplication; extracellular matrix; glycop F; 1-33/Domain: signal sequence #status predicted <SIG>
F; 1-33/Domain: restrictin #status predicted <MAT>
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F;324-405/Domain:
Query Match
Best Local Similarity
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Neuron 8, 849-863, 1992
A;Title: The chicken neural extracellular matrix molecule restrictin: similarity with
A;Reference number: JH0675; MUID:92265298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: PS0385
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-1353 < NOE>
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Neuron 8, 849-863,
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C:Species: Gallus gallus (chicken)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C:Accession: JH0675; PS0385; S23254
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J. Biol. Chem. 267, 23165-23169, 1992 A;Title: Sequence of the fifth largest subunit of RNA polymerase II from plants. A;Accession: A44457 MUID:93054645 A;Accession: A44457 AUID:93054645 A;Accession:A44457 AUID
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A; Residues: 1-176 <ULM>
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EGF homology <EG4>
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75.0%;
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Pred. No. 8
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C;Superfamily: nitrile hydratase alpha chain
C;Keywords: carbon-oxygen lyase; hydro-lyase; iron; metalloprotein
F;2-188/Product: nitrile hydratase alpha chain #status predicted <MAT>
F;110,113,114,115/Binding site: nitrosyl iron (Cys, Cys, Ser, Cys) (shared F;113/Modified site: cysteine sulfinic acid (Cys) #status predicted
F;115/Modified site: cysteine sulfenic acid (Cys) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 21-Nov-1998 #sequence_revision 21-Nov-1998 #text_change 15-Sep-2000 C;Accession: S04472; A30463; S16606; S02070; S54105; S62095; S15071; S28887 R;Ikehata, O.; Nishiyama, M.; Horinouchi, S.; Beppu, T. Bur, J. Biochem. 181, 563-570, 1989 a;Title: Primary structure of nitrile hydratase deduced from the nucleotide A;Reference number: S04471; MUID:89276338
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J. Bacteriol. 172, 6764-6773, 1990
A;Title: Purification, cloning, and primary
A;Reference number: A37806; MUID:91072222
                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-17, 'A', 19-207 <NIS>
A; Cross-references: EMBL:X14668
R; Endo, T.; Watanabe, I.
                                                                                                                                                                                                                                            submitted to the EMBL Data A; Reference number: $16606 A; Accession: $16606
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A; Molecule type: protein A; Residues: 2-19, 'T' <ENI R; Bigey, F.; Chebrou, H.
                                                                 A; Title: Nitrile hydratase of Rhodococcus A; Reference number: S02070; MUID:89153549 A; Accession: S02070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Species: Rhodococcus sp.
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A; Residues: 1-188 <MAY>
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                                                                                                                                   R; Endo, T.; Watanabe, I. FEBS Lett. 243, 61-64, 1989
                                                                                                                                                                                                                                                                                                                   R;Nishiyama, M.
                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein
A; Residues: 2-19;47-66;144-159 <IKE2>
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  Arnaud,
                                                                                                                                                                                                                                                                                           Library, March 1989
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Pred. No. 15;
  A.; Galzy,
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nitrile hydratase (EC 4.2.1.84) alpha chain - Rhodococcus erythropolis C;Species: Rhodococcus erythropolis C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Jun C;Accession: JN0705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submitted to the Brookhaven Protein Data Bank, April 1997
A;Reference number: A73039; PDB:IAHJ
A;Reference number: A73039; PDB:IAHJ
A;Contents: annotation; X-ray crystallography, 2.65 angstroms, residues 10-17,'A',19-
R;Nagashima, S; Nakasako, M; Dohmae, N.; Tsujimura, M; Takio, K; Odaka, M.; Yohad
Nature Struct Biol 5, 347-351, 1998
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A; Residues: 1-29;30,197-207 <HAS>
A; Residues: 1-29;30,197-207 <HAS>
A; Cross-references: EMBL: X54074
A; Experimental source: strain N-774
R; Huang, W.; Schneider, G.; Lindqvist,
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A;Title: Cloning and characterization of an amidase gene A;Reference number: S15070; MUID:91159474
A;Accession: S15071
                                                                                                                                                                                                           C;Accession: JN0705
R;Duran, R.; Nishiyama, M.; Horinouchi, S.; Beppu, Biosci. Biotechnol. Biochem. 57, 1323-1328, 1993
A;Title: Characterization of nitrile hydratase generation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Description: catalyzes the reaction of one molecule of water and an aliph C;Superfamily: nitrile hydratase alpha chain C;Keywords: carbon-oxygen lyase; hydro-lyase; iron; metalloprotein E;2-207/Product: nitrile hydratase alpha chain #status experimental <MAT> F;110,113,114,115/Binding site: nitrosyl iron (Cys, Cys, Ser, Cys) (shared F;112/Modified site: cysteine sulfinic acid (Cys) #status experimental F;115/Modified site: cysteine sulfenic acid (Cys) #status experimental
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A; Accession: S62095
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                                                    A; Cross-references: DDI
A; Experimental source:
                                                                                                                              A; Molecule type:
                                                                                                                                                          A; Reference number: PN0570; MUID: 93379358 A; Accession: JN0705
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A; Residues: 1-207 <NI2>
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A; Residues: 1-207 <BIG>
A; Gene:
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A; Molecule type: mRNA
A; Residues: 1-126, 'V', 128-205, 'S', 207-378 < YOS>
A; Cross-references: EMBL; D89220; NID: 91749647; |
                                                                                                           A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-378 <MCD>
A;Cross-references: EMBL:AL096874; PIDN:CAB51339.1; GSPDB:GN00067;
A;Cross-references: EMBL:AL096874; PIDN:CAB51339.1; GSPDB:GN00067;
A;Cross-references: EMBL:AL096874; PIDN:CAB51339.1; GSPDB:GN00067;
A;Cross-references: EMBL:AL096874; PIDN:CAB51339.1; GSPDB:GN00067;
A;Cossidar, S; Kato, K; Nakai, K; Okayama, H.; Nojima, H.
A;Tile: Identification of open reading frames in Schizosaccharomyc
A;Reference number: Z17323; MUID:98162722
A;Sccession: T43041
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R;MC Dougall, R.; Rajandream, M.A.; Barrell, B.G.; Seeger,
submitted to the EMBL Data Library, July 1999
A;Reference number: Z21856
A;Accession: T39466
                                                                                              A:Status: translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                  alcohol dehydrogenase (EC 1.1.1.1) class III [similarity] - fission yeast (Schizosaccha: N:Contains: formaldehyde dehydrogenase (glutathione) (EC 1.2.1.1) c;Species: Schizosaccharomyces pombe c;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 08-Dec-2000 c;Accession: T39466; T43041
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A; Residues: 1-295 <STO>
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A;Accession: H83989
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Nucleic Acids Res. 28, 4317-4331, 2000
A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein BH2720 [imported] - Bacillus halodurans (strain C-125) C; Species: Bacillus halodurans (strain C-125) C; Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 31-Dec-2000 C; Accession: H83989
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PIDN:BAA13881.1; PID:d1014578; PID:g17496
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                                                                                                                                                                                                                                                                                                                                                                                                    K.; Quail, M.; Harris,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
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Query Match

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Score

33; DB <u>ب</u>

Length

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submitted to the EMBL Data Library, January 1998 A; Description: Genomic sequence for Arabidopsis t A; Accession: T00904 A; Accession: T00904 A; Status: translated from GB/EMBL/DDBJ A; Molecule type: DNA
A;Gene: ATSP:F21B7.18
A;Map position: 1
                                             A;Cross-references:
C;Genetics:
                                                                                                                                                                                                                  R;Shinn, P.; Buehler, E.; Dewar, eologis, A.; Ecker, J.R.
                                                                                 A; Residues: 1-609 <SHI>
                                                                                                                                                                                                                                                        hypothetical protein F21B7.18 - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C:Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 22-Oct-1999
                                                                                                                                                                                                                                                                                                                                                         T00904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-482 <KLE>
A; Cross-references: GB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: acetyl-CoA hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; nucleic acid sequence not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archa;Reference number: A69250; MUID:98049343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Do.; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weldman, J.F.; McDonald, L. Nature 390, 364-370, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4-hydroxybutyrate CoA transferase (cat2-1) homolog - Archaeoglobus fulgidus C;Species: Archaeoglobus fulgidus C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 17-Mar-2000
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Best Local S
Matches 6
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A;Map position: 2
A;Introns: 11/3; 26/2
C;Function:
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                                          EMBL:AC002560; NID:g2618677; PID:g2809249;
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75.0%;
                                                                                                                                                                                                                            K.; Feng, J.; Kim, C.;
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Pred. No. 40;
1; Mismatches
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                                                                                                                                                                     thaliana BAC
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tegument protein 64 - equine herpesvirus 2
(;Species: equine herpesvirus 2
C;Date: 27-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 08-Oct-1999
C;Accession: $55659
R;Telford, E.A.R.; Watson, M.S.; Aird, H.C.; Perry, J.; Davison, A.J.
J., Mol. Biol. 249, 520-528, 1995
A;Title: The DNA sequence of equine herpesvirus 2.
A;Reference number: $55594; MUID:95302501
A;Accession: $55659
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Mol
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S55659
Search completed: June 13, 2001, 14:10:44 Job time: 145 sec
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Best Local Similarity
...+ches 5; Conserva
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C;Superfamily: Escherichia coli methionyl aminopeptidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Kawarabayasi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-no, K.; Takahawa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kudoh, Res. 6, 83-101, 199
A;Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropyr A;Reference number: A72450; MUID:99310339
A;Accession: C72712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  probable methionine aminopeptidase APE1114 - Aeropyrum pernix (strain K1) C;Species: Aeropyrum pernix (C;Decies: Aeropyrum pernix C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 20-Jun-2000 C;Accession: C72712
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A;Experimental source: strain Kl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary
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Best Local Similarity 75.0
Matches 6; Conservative
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1048 GRGSVEDG 1055
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258 GKGLVPDG 265
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Pred. No. 3.2e+02;
1; Mismatches 1
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Mis Pago Blonk (USDIO)

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     Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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    protein search, using sw model

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length: 2000000000
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Match
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P38421 arabidopsis
P46279 glycine max
P113448 mthodococcus
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O13766 schizosacch
Q01549 sealaginella
P13188 saccharomyc
P37653 escherichia
P13180 saccharomyc
P37495 bacillus su
P31902 alcaligenes
P25437 escherichia
P11964 homo sapien
P28474 mus musculu
O19053 oryctolagus
P11711 rattus norv
P40394 homo sapien
P41682 rattus norv
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O00672 homo sapien
P40973 lilium long
P94565 bacillus su
Q60750 mus musculu
P17489 emericella
P44933 haemophilus
P11126 bacteriopha
O95754 homo sapien
Q62919 rattus norv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM ..... MEDINE-93054645; PubMed=1429003; Ulmasov T.N., Guilfoyle T.J.; "Sequence of the fifth largest subunit of RNA polymerase II from Plants."; Plants."; J. Blol. Chem. 267:23165-23169(1992).

-I- FUNCTION: DNA-DEFENDENT RNA POLYMERASE CATALYZES THE TRANSCRIPTION TWO THE TWO THE FOUR RIBONUCLEOSIDE TRIPHOSPHATES AS
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RPBT_SOYBN
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P46279;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
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DNA-DIRECTED RNA POLYMERASE II 19 KDA POLYPEPTIDE
(RNA POLYMERASE II SUBUNIT 5).
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SUBCELLULAR LOCATION: NUCLEAR.
MISCELLANEOUS: THREE DISTINCT ZINC-CONTAINING RNA POLYMERASES AI FOUND IN EUKARYOTIC NUCLEI: POLYMERASE I FOR THE RIBOSOMAL RNA PRECURSOR, POLYMERASE II FOR THE MRNA PRECURSOR, AND POLYMERASE
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XA Nagashima S., Nakasako M., Dohmae N., Tsujimura M., Takio K.,

XA Odaka M., Yohda M., Kamiya N., Endo I.;

YI "Novel non-heme iron center of nitrile hydratase with a claw setting

RI of oxygen atoms.";

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 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
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[7]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Endo T., Watanabe I.,
"Nitrile hydratase of Rhodococcus
acid sequences.";
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Hashinoto Y., Nishiyama M., Ikehata O., Horinouchi S., "Cloning and Characterization of an amidase gene from I species N-774 and its expression in Escherichia coli." Biochim. Biophys. Acta 1088:225-233(1991).
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Submitted (MAR-1995)
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MEDLINE-89276338; PubMed-2659343;
IKehata O., Nishiyama M., Horinouchi S., Beppu T.;
"Primary structure of nitrile hydratase deduced from
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A Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K.,
A Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D.,
A Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D.,
A Spadafora R., Vlcare R., Wang Y., Wierzbowski J., Gibson R.,
A Jiwani N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar S.,
A McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
A Daniels C.J., Mao J.-I., Rice P., Nolling J., Reeve J.N.;
"Complete genome sequence of Methanobacterium thermoautotrophicum
T deltah: functional analysis and comparative genomics.";
J. Bacteriol. 179:7135-7155(1997).
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C -!- SUBUNIT: COMPLEX OF TWO DIFFERENT SUBUNITS (POTENTIAL).
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IL; X54074; CAA38010.1;

IL; Z48769; CAA886851.1;

IL; M60264; AAA67722.1;

II; S04472; S04472;

II; B37806; B37806.
          s SWISS-PROT entry is copyright. It is produced through a collab ween the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
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2AHJ; 16-FEB-99.
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Best Local S
Matches 5
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InterPro; IPRO01590; -.
InterPro; IPRO01762; -.
InterPro; IPRO01762; -.
Pfam; PF01421; Repro1ysin; 1.
Pfam; PF00200; disintegrin; 1.
PROSITE; PS50215; ADAM_MEPRO; 1.
PROSITE; PS50215; ADISINTEGRIN_1; FALSE_NEG.
PROSITE; PS00142; DISINTEGRIN_2; 1.
PROSITE; PS00142; ZINC_PROTEASE; FALSE_NEG.
            CHAIN
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ACT_SITE
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                                                                     Hydrolase;
SIGNAL
                                                                                                                                                                                                                                                                        modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Devlin K., Churcher C.M., Barrell B.G., Rajandream M.A., Wood V Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: MAY ACT AS AN ATP-DEPENDENT ZINC METALLOPEPTIDASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROBABLE ZINC SPAC17A5.04C.
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InterPro; IPR000649; -.
Pfam; PF01008; IF-2B; 1.
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                                                                                                                                                                                                                                                                                                                     use
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                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-972;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
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15-JUL-1998 (Rel.
30-MAY-2000 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YE94_SCHPO
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                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL)
SIMILARITY: BELONGS TO PEPTIDASE FAMILY MIZB (ZINC
METALLOPROFEASE); ALSO KNOWN AS THE REPROLYSIN SUBFAMILY.
SIMILARITY: CONTAINS 1 DISINTEGRIN-LIKE DOMAIN.
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COFACTOR: BINDS ONE ZINC ION (BY SIMILARITY)
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5; Conser
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 ; Metalloprotease; 1 512 16 512 229 229 229 230 233 233 233 239 239 239
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Rel. 36, Last sequence update)
Rel. 39, Last anotation update)
METALLOPEPTIDASE C17A5.04C PRECURSOR (EC
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                                                                                    Zinc;
PROBABLE ZINC METALLOPEPTIDASE C17A5.04C.
ZINC (CATALYTIC) (BY SIMILARITY).
BY SIMILARITY.
ZINC (CATALYTIC) (BY SIMILARITY).
ZINC (CATALYTIC) (PROBABLE).
                                                                      POTENTIAL.
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InterPro; IPR000014;
InterPro; IPR0000410;
InterPro; IPR000410;
InterPro; IPR0003018;
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InterPro; IPR000410;
InterPro; IPR00410;
InterPro; IP
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RL Photochem. Photobiol. 56:751-758(1992).

CC -1- FUNCTION: REGULATORY PHOTORECEPTOR WHICH EXISTS IN TWO FORMS THAT CC ARE REVERSIBLY INTERCONVERTIBLE BY LIGHT: THE PR FORM THAT ABSORBS CC ARE REVERSIBLY INTERCONVERTIBLE BY LIGHT: THE PR FORM THAT ABSORBS CC ARE REVERSIBLY IN THE FEB REGION OF THE SPECTRUM AND THE PER FORM THAT CC CAMBORIS MAXIMALLY IN THE FAR-RED REGION. PHOTOCONVERSION OF RINDUCES AN ARRAY OF MORPHOGENIC RESPONSES, WHEREAS CC RECONVERSION OF PR TWO MORPHOGENIC RESPONSES, WHEREAS CE RECONVERSION OF PR CANCELS THE INDUCTION OF THOSE CC GENES INCLUDING THOSE EXPORENSION OF A NUMBER OF NUCLEAR CC GENES INCLUDING THOSE EXPONSEN SMALL SUBUNIT OF RIBULOSE-PROTOCHLOROPHYLLIDE REDUCTASE, CHLOROPHYLL A/B BINDING PROTEIN, CC THE EXPRESSION OF A SIRINDAY LASE, CHLOROPHYLL A/B BINDING PROTEIN, CT. THE EXPRESSION OF A SIRINDAY HOMONTMER REDUCTASE, RNAA, ETC. IT ALSO CONTROLS CC. THE EXPRESSION OF THOSE SHOULD ASE, SIRINDAY FEEDBACK FASHION.
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BINDING
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hanelt S., Braun B., Marx S., "Phytochrome evolution: a physequence of phytochrome from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-SPRING;
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Eukaryota; Viridiplantee; Embryophyta; Tracheophyta; Lycopodiophyta;
Isoetopsida; Selaginellales; Selaginellaceae; Selaginelia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PHY1_SELMA
Q01549;
01-JUL-1993
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PTM: CONTAINS ONE COVALENTLY LINKED TETRAPYRROLE CHROMOPHORE.
SIMILARITY: BELONGS TO THE PHYTOCHHOME FAMILY.
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5; Conserv
                                                   regulation; Photoreceptor; Phytochrome; Chromophore;
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B., Marx S., Schneider-Poetsch H.A.W.;
Lution: a phylogenetic tree with the first complete
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Pred. No.
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CONFLICT
SEQUENCE
                                                                                                                                                              HSSP; P00962; 1QRU.
SGD; S0005694; GLN4.
InterPro; IPR000924;
InterPro; IPR001412;
                                                                                                                                                                                                                                EMBL; M29184; AAA34646.1; --
EMBL; M29185; -; NOT_ANNOTATED_CDS.
EMBL; U55021; AAB47415.1; --
EMBL; 275076; CAA99374.1; --
PII; A88494; SYBYQT.
                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-97127828; PubMed-8972579;
MEDLINE-97127828; PubMed-8972579;
Madania A., Poch O., Tarassov I.A., Winsor B., Martin R.P.;
"Analysis of a 22,956 bp region on the right arm of Saccharomyces cerevisiae chromosome XV.";
Peast 12:1563-1573(1996)
-i- CATALYTIC ACTIVITY: ATP + L-GLUTAMINE + TRNA(GLN) - AMP +
-YRODPHOSHATE + L-GLUTAMINYL-TRNA(GLN).

-I- SIMILARITY: BELONGS TO CLASS-I AMINOACYL-TRNA SYNTHETASE FAMILY.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Gene for yeast glutamine tRNA synthetase encodes a large amino-terminal extension and provides a strong confirmation of the signature sequence for a group of the aminoacyl-tRNA synthetases.";

J. Biol. Chem. 262:10801-10806(1987).
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01-JAN-1990 (Rel. 13, Created)
01-VNV-1997 (Rel. 35, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
01-WV-1-MRNA SYNTHETASE (EC 6.1.1.18) (GLUTAMINE--TRNA LIGASE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLN4 OR YOR168W OR USVL.
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota, Fungi, Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomyces.
Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=87280149;
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                                 IPRUU1412,
00749; tRNA-SYNT_1C; 1.
PS00178; AA_TRNA_LIGASE_I; 1.
1-tRNA_SYNTHETASE; Protein biosynthesis; Ligase; ATP-binding.
"HIGH" REGION.
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62.5%;
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          WW;
                    "KMSKS" REGION.
ATP (BY SIMILARITY).
G -> Q (IN REF. 1).
C7AB13D02BC483F6 CRC64;
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Pred. No. 1e+02;
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Similarity 5; Conserv

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Score 31; DB Pred. No. 1.2e 2; Mismatches

DB 1; 1.2e+02;

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STRAIN=K12 / MG1655;
MEDLINE=94316500; PubMed=8041620;
MEDLINE=94316500; PubMed=8041620; PubMed=8041620;
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MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F., Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
                                                                                                                                                                   Pfam; PF00535; Glycos_transf_2; 1.
Hypothetical protein; Cellulose blosynthesis; Transferase; Glycosyltransferase; Transmembrane; Inner membrane.

TRANSMEM 50 POTENTIAL.
                                                                                                                                                                                                                                                                                                                    EMBL; U00039; AAB18510.1; ALT_FRAME. EMBL; U00039; CAB34650.1; ALT_FRAME. EMBL; AE000430; AAC76558.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SIMILARITY:
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Query Match

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1 30-MAY-2000 (Rel. 39, Created)

T 30-MAY-2000 (Rel. 39, Last sequence update)

O1-OCT-2000 (Rel. 40, Last annotation update)

DE DNA-OLIRECTED RNA POLYMERASE ALPHA CHAIN (EC 2.7)

DE ONA-CHAIN) (RNA POLYMERASE ALPHA SUBUNIT).
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KPT2_ARCFU
028719;
01-OCT-2000
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01-OCT-2000
PROBABLE RNA
KPTA2 OR AF1
                                                                                                                                                                                                                                                         Lee J., Manhart J.R.;

"Chloroplast rp123 gene cluster of Spirogyra maxima (Charophyceae),
"shared by land plants.";

Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: DNA-DEPENDENT RNA POLYMERASE CATALYZES THE TRANSCRIPTION
OF DNA INTO RNA USING THE FOUR RIBONUCLEOSIDE TRIPHOSPHATES AS
                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
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Zygnemataceae; Spirogyra.
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|433 GLVQDG 438
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 RNA 2'-
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(Rel. 40, Last annotation updat
2'-phosphotransferase 2 (EC 2.
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Best Local S
Matches 5
                                                                                                                                                         Bacillus subtilis.
Bacteria; Firmicutes; Bac
Bacillus/Staphylococcus ç
NCBI_TaxID=1423;
          MEDLINE-96051385; PubMed-7584024;
Ogasawara N., Nakai S., Yoshikawa
"Systematic sequencing of the 180
                                                                                                                                                                                                                                                                                                        YYBI_BACSU
P37495;
O1-OCT-1994
O1-OCT-1994
O1-FEB-1995
                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                               HYPOTHETICAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "The complete genome sequence of the hyperthermophilic, sulphate-reducing archaeon Archaeoglobus fulgidus.";
Nature 399:364-370(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 RGLVQDG
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Archaea; Eurya
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: REMOVES THE 2'-PHOSPHATE FROM RNA VIA AN INTERMEDIATE IN WHICH THE PHOSPHATE IS ADD-RIBOSYLATED BY NAD FOLLOWED BY A PRESUMED TRANSESTERIFICATION TO RELEASE THE RNA AND GENERATE ADD-RIBOSE I*-2"-CYCLIC PHOSPHATE (APPR>P). MAY FUNCTION AS AN ADP-RIBOSYLASE (BY SIMILARITY).

SIMILARITY: BELONGS TO THE KPTA / TPT1 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pro; IPR002745;
PF01885; DUF60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AE000995; AAB89693.1; AF1553; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
5; Conserv
                                                                                                                                                                                                                                                                             4 (Rel. 30, Created)
4 (Rel. 30, Last sequ
5 (Rel. 31, Last anno
AL 30.1 KDA PROTEIN I
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216 AA;
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Euryarchaeota; Archaeoglobales; Archaeoglobaceae;
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PubMed=9389475;
                                                                                                                                                                   Bacillus/Clostridium
us group; Bacillus.
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71.48;
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Last annotation update)
PROTEIN IN COTF-TETB INTERGENIC REGION.
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Pred. No. 50;
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  H.;
kilobase region
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the Bacillus
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RESULT
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Best Local S
Matches 6
                                                                           This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/anor send an email to license@isb-sib.ch).
                                                         EMBL; X70183; CAA49732.1; PIR; S29976; S29976.
                                                 InterPro;
                                                                                                                                                                         Submitted (NOV-1994) to the EMBL/GenBank/DDBJ databases I- FUNCTION: COULD BE INVOLVED IN NICKEL BINDING AND ACTION OF THE HYPB/HUPM FAMILY.
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

STRAIN-HI6 / ATCC 17699;

MEDLINE-9355697; PubMed-8352644;

MEDLINE-9355697; PubMed-8352644;

Dernedde J., Eithnger M., Friedrich B.;

Analysis of a pleiotropic gene region involved in formation of catalytically active hydrogenases in Alcaligenes eutrophus H16.*;

Arch. Microbiol. 159:545-553(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P31902;
01-JUL-1993 (
01-NOV-1995
15-JUL-1999
                                                                                                                                                                                                                                         Eitinger
                                                                                                                                                                                                                                             REVISIONS.
STRAIN-H16 / ATCC 17699;
                                                                                                                                                                                                                                                                                                                                                                                                     Alcaligenes eutrophus (Ralstonia eutropha).
Plasmid megaplasmid pHG1.
Bacteria; Proteobacteria; beta subdivision;
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EMBL; 299124; CAB16100.1; -.
Subtilist; BG10022; yybI.
Hypothetical protein.
SEQUENCE 262 AA; 30149 MW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its work by non-profit institutions as long as its content is in no way entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                  Pro; IPR002894;
PF01495; HypB_1
                      Plasmid
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(Rel.
(Rel.
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ilarity 100.0%;
Conservative
          AA;
                                HypB_UreG;
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32,
        38483 MW;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                beta subdivision; Ralstonia group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MW; 1DAAFF2F9714B5E4 CRC64;
BC42976B7C5F75C4 CRC64;
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Pred. No.
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61;
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                                                                                                                                                                                              ACCUMULATION
                                                                                                                                              a collaboration - MBL outstation -
                                                                                                                                            outstation
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S
                                    RT glutathione-dependent formaldehyde dehydrogenase from Escherichia RT coll: a class III alcohol dehydrogenase from Escherichia RT coll: a class III alcohol dehydrogenase from Escherichia RT coll: a class III alcohol dehydrogenase.";

RL Blochemistry 31:475-481(1992).

CC PRESENCE OF GLUTATHIONE AND CATALYZES THE OXIDATION OF NORMAL COMEGNATION IN A REACTION THAT IS NOT GSH DEPENDENT. IN ADDITION, COMEGNATHIOLACETALS OTHER THAN THOSE FORMED FROM GSH, INCLUDING COMEGNATHIOL FATTY ACIDS, ALSO ARE SUBSTRATES.

C --- CATALYTIC ACTIVITY: ALCOHOL + NAD(+) = ALDEHYDE OR KETONE + NADH.

S-FORMYLGLUTATHIONE + NADH.

--- SUBCELLULAR LOCATION: CYTOPLASMIC.

--- SUBCELLULAR LOCATION: CYTOPLASMIC.

--- SIMILARITY: BELONGS TO THE ZINC CONTAINING ALCOHOL DEHYDROGENASE FAMILY, CLASS-III SUBFAMILY.

--- CAUTION: REF. 1 AND PERS 1
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SEQUENCE FROM N...
STRAIN-K12 / MG1655;
STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
MEDLINE-97426617; PubMed-9278503;
MEDLINE-97426617; Bloch C.A
Pilev M., Collado-Vides J., Glasner J.D.,
Pilev M., Collado-Vides J., Collado-Vide
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P25437; P75696;
01-MAY-1992 (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P25437; P/2007, Created)
01-MAY-1992 (Rel. 22, Created)
01-NOV-1997 (Rel. 35, Last seguence update)
15-JUL-1998 (Rel. 36, Last annotation update)
ALCOHOL DEHYDROGENASE CLASS III (EC 1.1.1.1)
ALCOHOL DEHYDROGENASE) (EC 1.2.1.1) (FDH
                                                                                                                                                                                                                                                                                                                                                                    Gutheil W.G., Holmquist B., Vallee B. "Purification, characterization, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Duncan M., Allen E., Araujo R.,
Federspiel N., Hyman R., Kalman
Namath A., Oefner P., Roberts D.
Submitted (NOV-1996) to the EMBI
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-47. MEDLINE-92118844; PubMed-1731906;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ECOLI
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                     FRAMESHIFT
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Matsumoto K.,
ed (SEP-1997) t
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                   POSITION
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to the
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R., Kalman S., Komp C., Kurdi O.,
Roberts D. Schramm S., Davis R.
to the EMBL/GenBank/DDBJ database:
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Pred. No.
0; Mismatc
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EMBL/GenBank/DDBJ
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ADHX_HORSE
ID ADHX_HA
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AC 01-FEB
DT 01-FEB
DT 30-MAY
DE ALCOHO
DE DEPEND
GN ADH5.
OS Equus
OC Mammal
OX NCBI_T
RN [1]
RP SEQUEN
RX MEDLIN
RA FAIRW
RA JOERN
RA JOERN
RT CESS
ICC EPI
CC G
CC G
ADH5.
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Best Local S
Matches
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CONFLICT
SEQUENCE
 dehydrogenases. Differences among the thre FEBS Lett. 222:99-103(1987).
-:- FUNCTION: CLASS-III ADH IS REMARKABLY ETHANOL, BUT IT READILY CATALYZES THE PRIMARY ALCOHOLS AND THE OXIDATION OF GLUTATHIONE.
                                                                                                           MEDLINE=88005160; Fairwell m
                                                                                                                                                         MEDLINE-90105360; PubMed-2690942;
Kaiser R., Holmquist B., Vallee B.L., Joernvall
"Characteristics of mammalian class III alcohol
enzyme less variable than the traditional liver
Biochemistry 28:8432-8438(1989).
                                                                                                                                                                                                                                                                                                                     01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
ALCOHOL DEHYDROGENASE CLASS III CHAIN
DEPENDENT FORMALDEHYDE DEHYDROGENASE)
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Mammalia; Eutheria; Perissodactyla;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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                                                                "Acetylated N-terminal structures dehydrogenases. Differences among
                                                                                                        Fairwell T., Julia
                                                                                                                                                                                                                                 SEQUENCE
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PS00059; ADH_ZINC;
uctase; Zinc; NAD.
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a P., Kaiser R.,
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62.5%;
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IC (SECOND ATOM) (BY SIMILARITY).
IC (CATALYTIC) (BY SIMILARITY).
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7 (EC 1.1
(EC 1.2
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             INEFFECTIVE IN OXIDIZING OXIDATION OF LONG-CHAIN S-(HYDROXYMETHYL)
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2.1.1)
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l dehydrogenases,
r enzyme of class
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InterPro; IPR002085; InterPro; IPR002328; Pfam; PF00107; adh_zinc

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"Cloning and characterization of the ADH5 gene encoding dehydrogenase 5, formaldehyde dehydrogenase."; Gene 121:305-311(1992)
                                                                                             SEQUENCE FROM N.A.
MEDLINE-93077045; PubMed-1446828
                                                                                                                                                                                                                                      [1]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-90056459; PubMed-2818582;
Sharma C.P., Fox E.A., Holmquist B., Joernvall H., Valler
"CDNA sequence of human class III alcohol dehydrogenase."
"CDNA sequence of human class III alcohol dehydrogenase."
                                                                                                                                                         "Cloning and comparative mapping of a human class dehydrogenase cDNA.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-1989 (Rel. 12, Created)
01-APR-1990 (Rel. 14, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ALCOHOL DEPYDROGENASE CLASS III CHI CHAIN (EC
DEPENDENT FORMALDEHYDE DEHYDROGENASE) (EC 1.2.
                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI_TaxID=9600;
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InterPro; IPR002326;
Pfam; PF00107; adh_zinc; 1.
PROSITE; PS00059; ADH_ZINC; 1.
PROSITE; PS00059; ADH_ZINC; 1.
ACETYLATION (BY SIMILARITY).
ACETYLATION (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -I- SUBUNIT: HOMODIMER.
-I- SUBUCELLULAR LOCATION: CYTOPLASMIC.
-I- SIMILARITY: BELONGS TO THE ZINC-CONTAINING ALCOHOL DEHYDROGENASE FAMILY. CLASS-III SUBFAMILY.

FIR; 802617; 802617.

PIR; A33419; A33419.

HSSP; P11766; 17EH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATALYTIC ACTIVITY: ALCOHOL + NAD(+) = ALDEHYDE OR KETONE + NADH. S-FORMYLGLUTATHIONE + NADH. COPACTOR: REQUIRES ZINC FOR ITS ACTIVITY.
                                                                                                                                                                                                    PubMed=2679557;
F., Kozak C., Moretti T.,
                                                                                                                                                Res. Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71.4%;
62.5%;
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                                                                                                                                       164:453-460(1989)
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Catarrhini; Hominidae;
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IMPORTANT FOR FDH ACTIVITY AND ACTIVATION
BY FATTY ACIDS (BY SIMILARITY).

491F01B0A7D43D32 CRC64;
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(SECOND ATOM).
(SECOND ATOM).
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Homo.
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       RY

X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS).

RY

MEDLINE-97170743; PubMed-9018047;

RA

Yang Z.-N., BOSTON W.F., Hurley T.D.;

Structure of human chi chi alcohol dehydrogenase: a glutathione-
RT

Gependent formaldehyde dehydrogenase.";

CC

I--UCTION: CLASS-III ADH IS REMARKABLY INEFFECTIVE IN OXIDIZING
CC

ETHANOL, BUT IT RADDILY CATALYZES THE OXIDATION OF LONG-CHAIN

CC

GLUTATHIONE.

CC

GLUTATHIONE.

CC

-I--CATALYTIC ACTIVITY: ALCOHOL + NAD(+) = ALDEHYDE OR KETONE + NADH.

CC

CC

-I--CATALYTIC ACTIVITY: FORWALDEHYDE + GLUTATHIONE + NADH.

CC

-I--COFACTOR: REQUITES ZINC FOR ITS ACTIVITY.

CC

-I-- SUBGNIT: HOMODIMER.

CC

-I-- SINGCELLHIAR TACATTON. CYTODIAGMIT

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-I-- SINGCELLHIAR TACATTON. CYTODIAGMIT

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-I-- SINGCELLHIAR TACATTON. CYTODIAGMIT
                                                                             EMBL; M30471; AAA79018.1;
EMBL; M29972; AAA51597.1;
EMBL; M81118; AAA51596.1;
EMBL; M81112; AAA51596.1; JOINED
EMBL; M81113; AAA51596.1; JOINED
EMBL; M81114; AAA51596.1; JOINED
EMBL; M81115; AAA51596.1; JOINED
EMBL; M81116; AAA51596.1; JOINED
EMBL; M81117; AAA51596.1; JOINED
EMBL; M81117; AAA51596.1; JOINED
EMBL; M81117; AAA51596.1; JOINED
EMBL; M81116; AAA51596.1; JOINED
EMBL; M8117; AAA51596.1; JOINED
PIR; A33428; DEHUCZ
PIR; A36739; A36739.
PIR; A36739; JH0789;
PIR; A36739; JH0789;
                                     MIM; 103710;
MIM; 136490;
                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content entities requires a license agreement (See http://www.isb-screen.com/dan.emii.tolicense@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             binding site required for fatty acid activation.";
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MEDLINE-93264427; PubMed-84,94891;
HOLMquist B., Moulis J.M., Engeland K., Vallee B.L.;
"Role of arginine 115 in fatty acid activation and formaldehyde dehydrogenase activity of human class III alcohol dehydrogenase.";
Biochemistry 32:5139-5144(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Mutation of Arg-115 of human class III alcohol dehyd
binding site required for formaldehyde dehydrogenase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Engeland K., Hoeoeg Vallee B.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-93211987; PubMe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-88209465; PubMed=3365377; Kaiser R., Holmquist B., Hempel J., Vallee B.L., Joernvall H.; "Class II human liver alcohol dehydrogenase: a novel structural Biochemistry related to the class I and class II enzymes."; "S1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUTAGENESIS
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SEQUENCE.
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MEDLINE=88209465;
                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: CYTOPLASMIC.
MISCELLANEOUS: THERE ARE 7 DIFFERENT ADH'S I
THREE BELLONGS TO CLASS-I: ALPHA, BETA, AND G
PI, ONE TO CLASS-III: CHI, ONE TO CLASS-IV:
CLASS-V: ADH6.
SIMILARITY: BELONGS TO THE ZINC-CONTAINING A
FAMILY. CLASS-III SUBFRAMILY.
                                                                    1TEH; 07-DEC-96
IPR002085;
IPR002328;
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eg J.-O., Holmqu
                                                                                                                                                                                                                                                                                                                                                                                                                     GS TO THE ZINC-CONTAINING ALCOHOL DEHYDROGENASE SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    U.S.A. 90:2491-2494(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Holmquist B.,
                                                                                                                                                                                                                                                                                              (See http://www.isb-sib.ch/announce/
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GAMMA, ONE TO CLASS-II:
ADH7 AND ONE TO
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1 GRGLVQDG 8

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RA SEQUEN
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ADH5 OR ADHX OR FDH Homo sapiens (Human)

"Cloning

Hur M.W., Edenberg

Seuanez H.N. Giri P.R., SEQUENCE FROM N.A. MEDLINE-90026418;

Krug J.F., N., Goldman

Biophys.

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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Ognrf4 pseudomonas
Ognrf6 neurospora h
Ognrf7 oryza sativ
Ognrf7 streptomyce
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SEQUENCE 540 AA; 5
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submitted (MAY-1999) to the
EMBL; AL049924; CAB43208.1;
HSSP; P29353; 1MIL.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1999 (TremBLrel. 12, Created)
01-NOV-1999 (TremBLrel. 12, Last sequence update)
01-OCT-2000 (TremBLrel. 15, Last annotation update)
HYPOTHETICAL 57.3 KDA PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR00401; SH2DOMAIN. PROSITE; PS50001; SH2; 1.
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7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                      57334 MW;
                                                                                                                                                                                                                                                                                                 88.1%;
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                                                                                                                                                                                                                                                                                              Score 37;
Pred. No.
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PRELIMINARY;

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AC 09P2P; PRELIMINARY; PRT; 730 AA. 09P2P; PT 01-0CT-2000 (TREMBLEEL 15, Created) TO 01-0CT-2000 (TREMBLEEL 15, Last sequence update) SKIAA1299 PROTEIN (FROMENT). Last sequence update) OS Homo Saplens (Human). OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo Saplens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 88.1
Matches 7; Conservative
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11111 ||
210 GRGLVSDG 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
NISHI M., WELLER B., Frantz D., Dhe-Pagnon S., Lee J., Shoelson S., Lee J., Shoelson S., Ee J., Shoelson S., Ee J., Shoelson S., SEQUENCE 683 AA, 72157 MW; 658B4EAD2596A5AA CRC64,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Euteleostomi;
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OT-CT-2000 (TERMBLEEL 15, Created)

OT-CT-2000 (TERMBLEEL 15, Last sequence update)

SH2-B GAMMA SIGNALING PROTEIN

SH2B. CAMBUA SIGNALING PROTEIN
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"Hushi M., Werner E., Frantz D., Dhe-Pagnon S., Lee J., Shoelson S., S
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutheria, Primates, Catarrhini, Hominidae, Euteleostomi,
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01-0CT-2000 (TrEMBLTel. 15, Created)
01-0CT-2000 (TrEMBLTel. 15, Last sequence update)
SH2-B BETA SIGNALING PROTEIN.
SH2B. Update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 88.1%; Score 37; DB 4; Length 671; Conservative 0; Mismatches 1; Indels
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SEQUENCE FROM N.A.

NEDIJNE-98155131. PubMed-9495743;
Velasco A. Alonso S.
Psenetic and functional facia J.L., Perera J., Diaz E.
J. Bacteriol 180:1063-1071(1998)

EMBL, AJ000330, CAA03998 1,
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C O3492
C O3492
PRELIMINARY;
T 01-JAN-1998
(TEMBLEE1. 05, Created)
DE STYRENE SENSOR KINASE. 15, Last annotation update)
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Best Local Similarity 87.5%,
Conservative
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PRELIMINARY;
T 01-02T-200
OT 01-02T-200
OT CHEMBLES
DE SH2-B ALPHA SIGNALING PROTEIN.
SH2B ALPHA SIGNALING PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Nishi M., Werner E.,
"Human SH2-B and APS dimertz D., Dhe-Pagnon S., Lee J., Shoelson SEQUENCE 756 AA, 79336 MM; C9DF60271EIC44D3 CRC64;
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Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

[1] TaxID-9606; Primates; Catarrhini; Hominidae; Homo.
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269 GRGLVSDG 276
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LOCAL Similarity 88.1%; Score 37; DB 4; Length 730;
Conservative 0; Mismatches 1; Indels
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Matches

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AC 09P2P7
DT 01-0CT
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DT 01-0CT
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DW KIAA12
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OK EUKARY
OK MAMMAN
NCBMA1

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RESULT
Q55856
ID 856
ID 95876
AC Q55876
AC Q5797
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INTERPRO; IPR001610;

DR INTERPRO; IPR001789;

DR PFAM; PF00072; response_reg; 1.

PR PFAM; PF00785; PAC; 1.

PFAM; PF00785; PAC; 1.

PFAM; PF00989; PAS; 1.

PFAM; PF00989; PAS; 1.

PRINTS; PR00344; BCTT
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Best Local S
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Q55856;
01-NOV-1996 (TrEMBLrel. 0
01-NOV-1996 (TrEMBLrel. 0
01-JUN-2000 (TrEMBLrel. 1
SEQUENCE FROM N.A. STRAIN-PCC6803; MEDLINE-96127529; PKaneko T., Tanaka A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   German Neurospora genome project;
Submitted (APR-2000) to the EMBL/GenBank/DDBJ
EMBL; AL353820; CAB88569.1; -
SEQUENCE 288 AA; 32004 MW; AA47812F595ABII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9P366;
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SChulte U., Aign V., H
Nyakatura G., Mewes H.
Submitted (APR-2000) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Neurospora crassa.
Eukaryota; Fung1;
NCBI_TaxID=5141;
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                                                                                              Bacteria; Cyanobacteria;
NCBI_TaxID=1148;
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                                                                                                                                      Synechocystis sp.
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7: Conserv
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PubMed-8590279;
A., Sato S., Ko
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87.5%;
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                                                                                                                      n PCC 6803).
Chroococcales;
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Last sequence update)
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  Kotani H.,
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Q9UV85;
01-MAY-2000
01-MAY-2000
01-OCT-2000
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NON_TER
SEQUENCE
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PROSITE;
SEQUENCE
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"Sequence analysis of the genome of the unicellular cyanobacterium "Sequence analysis of the genome of the unicellular cyanobacterium synechocystis sp. strain PCC6803. I. Sequence features in the 1 Mb region from map positions 64% to 92% of the genome.";
DNA Res. 2:153-166(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-ATCC12330;
Liu Y.J., Whelen S., Hall B.D.;
"Phylogenetic relationships among
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Curvularia brachyspora.
Eukaryota; Fungi; Ascomycota; Pleosporales; anamorphic Pleosporaceae; Curvularia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
DNA-DEPENDENT RNA POLYMERASE II RPB140 (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polymerse II subunit.";
Mol. Biol. Evol. 16:1799-1808(1999).
EMBL; AF107803; AAF19075.1; -.
INTERPRO; IPRO01572; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTERPRO; IPR001617; -.
PFAM; PF00005; ABC_tran; 1.
PFAM; PF00664; ABC_membrane; 1.
PROSITE; PS00211; ABC_TRANSPORTER; UNKNOWN_1.
PROSITE; PS00889; CNMP_BINDING_2; UNKNOWN_1.
PROSITE; PS00889; CNMP_BINDING_3D5ADD81B667D7C1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; D64004; BAA10612.1;
INTERPRO; IPRO00595; -.
INTERPRO; IPRO01140; -.
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PROSITE; PS01166; RNA_PO1_BETA;
   485
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942 AA;
                                                                                                                                      Conservative
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1.1e+02;
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mura T.,
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RESULT 10

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DT 01-MAY

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DE DNA-D

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RESULT
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STRAIN-CV. NIPPONBARE;
SassAi T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 1,
clone:P0469E09.",
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AP001366; BAA92410.1;
SEQUENCE 152 AA; 16852 MW; 5D32B935DE81D619 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HYPOTHETICAL PROTEIN.
Oryza sativa (Rice).
Bukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; Liliopsida; Poales; Poaceae; Oryza.
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01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
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01-MAY-2000
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Eukaryota; Fungi; Ascomycota;
NCBI_TaxID=33177;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-EGS04-188C;
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TE; PS01166; RNA_POL_BETA;
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942 AA;
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(TrEMBLrel. 13, Last sequence update)
(TrEMBLrel. 14, Last annotation update)
NT RNA POLYMERASE II RPB140 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              942
: 106436 }
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75
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85.7%;
                                                                                                                                                                                                                                                                         0%;
                                                                                                                                                                                                                               Score 34; DB
Pred. No. 22;
1; Mismatches
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Last sequence update)
Last annotation update)
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1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E61510108C771078 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 152 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 3; 1
1.1e+02;
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                                                                                                                                                                                                                                                                                              DB
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ACCOMPAND ACCOMP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q00546 PRELIMINARY;
Q00546;
Q1 NOV-1996 (Trembirel 01, C)
01-NOV-1996 (Trembirel 01, L)
01-JUN-2000 (Trembirel 14, L)
RESTRICTIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                         MEDLINE-92265298; PubMed=1375037;
Noerenberg U., Wille H., Wolff M., Frank R., Rathjen
"The chicken neural extracellular matrix molecule res
similarity with EGF-, fibronectin type III-, and fibr
                                                      INTERPRO;
                                                                                      INTERPRO;
INTERPRO;
                                                                                                                                                                                Neuron 8:849-863(1992).
EMBL; X64649; CAA45920.1;
PIR; JH0675; JH0675.
PIR; P24821; ITEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kinashi H., Hopwood D.A.;

"A set of ordered cosmids and a detailed genetic and the 8 Mb Streptomyces coelicolor A3(2) chromosome.";

MOI. Microbiol. 21:77-96(1996).

EMBL; AL356612; CAB92370.1;

SEQUENCE 687 AA; 70938 MW; B6AD2F58253C5889 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O9KYF3

O9KYF3;

PRELIFICATION
O1-OCT-2000 (TrEMBLrel. 15, Created)
O1-OCT-2000 (TrEMBLrel. 15, Last sequence update)
O1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Redenbach M., Kieser H.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-A3(2);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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Bentley S.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Streptomyces coelicolor.

Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces.
NCBI_TaxID=1902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=A3(2);
Brown S.P., H
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
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                                           ; IPR000561; -.; IPR000950; -.; IPR001777; -.; IPR002181; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.0%;
75.0%;
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Last annotation update;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Barrell B.G., Rajandream M.A.
e EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 34; DB
Pred. No. 1.2e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B6AD2F58253C5889 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1353 AA.
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1.2e+02;
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Q9K9C9
ID Q9K9C9
AC Q9K9C9
AC Q9K9C9
DT 01-OCT
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Best Local Similarity 75.0
Matches 6; Conservative
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Best Local Similarity 75.0
Matches 6; Conservative
SEQUENCE FROM N.A.
STRAIN-C-125 / JCM 9153;
TAKAMI H., NAKASONE K., Takaki Y.;
Takami H., Nakasone K., Takaki Y.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AP001516; BAB06439.1; -.
SEQUENCE 295 AA; 34308 MW; 1BDE317EDA39B764 CRC64;
                                                                                                                                                                                      Bacillus halodurans.
Bacteria; Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
NCBI_TaxID=86665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q52737
Q52737;
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|||: |||
302 GRGVCQDG 309
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SIGNAL
                                                                                                                                                                                                                                                                                                                               01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
BH2720 PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Robert D. Nishiyama M., Horinouchi S., Beppu T.; "Characterization of nitrile hydratase genes cloned from Rhodococcus erythropolis"; Biosci. Biotechnol. Biochem. 57:1323-1328(1993). EMBL; D14454; BAA03348.1; "HSSP; P134448; IAHD. 1448; ALAD. 23116 MW; F331BC6411FCA394 CRC6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-JCM6823;
MEDLINE-93379358; PubMed-7764017;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rhodococcus erythropolis.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Corynebacterineae; Nocardiaceae; Rhodococcus.
NCBI_TaxID=1833;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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PROSITE; PS00022; EGF_1; UNKNOWN_5.
PROSITE; PS00241; RECEPTOR_CYTOKINES_1; UNKNOWN_1.
PROSITE; PS01186; EGF_2; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09к9с9
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1996 (TrEMBLrel. 12, Last annotation update)
NITRILE HYDRATASE ALPHA SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32 GKGLVPDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GRGLVQDG 8
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34 1353 RESTRICTIN.
1353 AA; 148278 MW; CD8393C42O3171D9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 33; DB
Pred. No. 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 34; DB 13;
Pred. No. 2.5e+02;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
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                               Query Match
Best Local S
Matches 7
220 GRGLVQMG 227
              1 GRGLVQDG 8
                               Similarity 7; Conserv
                                Conservative
                                      78.6%;
87.5%;
                               Score 33; DB Pred. No. 74; 0; Mismatches
                               0;
                                               γ,
                               1;
                                              Length 295;
                               Indels
                               0
                               Gaps
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Search completed: Job time: 732 sec

June 13,

2001, 14:20:32

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Minimum DB
Maximum DB
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
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length: 2000000000
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1: /cgn2_6/ptodata/2/laa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/laa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/laa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/laa/FCTUS_COMB.pep:*

5: /cgn2_6/ptodata/2/laa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/2/laa/backfiles1.pep:*
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     185757 seqs, 19210857 residues
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US-07-843-125-11
US-08-573-002A-3
US-08-63-010-3
US-08-63-010-3
US-08-468-847B-12
US-08-468-847B-12
US-08-468-847B-12
US-08-468-847B-11
US-08-468-847B-11
US-08-820-170A-34
US-09-055-69-34
US-09-055-69-34
US-09-273-565-34
US-09-273-565-34
US-09-273-565-34
US-08-652-816A-12
US-08-652-816A-12
US-08-98-20-179-2
US-08-98-20-2182-2
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US-08-98-318-39-8-6
US-08-331-398-6
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US-08-331-3978-66
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Sequence
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US-07-843-125-11
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Best Local S
Matches 7
                                                       1 GRGLVQDG 8
                             8
                          GRGLVQPG 15
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US-08-362-780-7	US-08-129-930B-75	US-07-977-696C-75	US-07-988-925-7	US-08-468-739C-119	US-08-466-710C-119	US-08-471-282A-119	US-08-467-282B-119	US-08-471-780C-119	US-08-468-739C-80	US-08-466-710C-80	US-08-471-282A-80	US-08-467-282B-80	US-08-471-780C-80	US-08-053-451B-113	US-08-859-931A-2	US-08-759-804A-54	US-08-331-397B-55
Sequence 7, Appli	Sequence 75, Appl	Sequence 75, Appl	Sequence 7, Appli	Sequence 119, App		Sequence 119, App				Sequence 80, Appl				Sequence 113, App	Sequence 2, Appli	-	Sequence 55, Appl

ALIGNMENTS

; TOPOLOGY: linear; MOLECULE TYPE: protein US-07-843-125-11 Sequence 11, Appli Patent No. 5395750 GENERAL INFORMATI STREET: ULLEY STATE: New Jersey STATE: New Jersey COUNTRY: U.S.A. TIP: 07110-1199 TPADABLE FC TELEFAX: (201) 235-3500 INFORMATION FOR SEQ ID NO: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk SEQUENCE CHARACTERISTICS: LENGTH: 246 amino acids TYPE: AMINO ACID CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION: NAME: ROSeman, Catherine REGISTRATION NUMBER: 3424 REFERENCE/DOCKET NUMBER: COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: NUMBER OF SEQUENCES: 13 CORRESPONDENCE ADDRESS: ADDRESSEE: George M. Gould, Esq., APPLICANT: Dillon, Patrick J APPLICANT: Rosen, Craig A TITLE OF INVENTION: Methods for Producing Proteins which TITLE OF INVENTION: Bind to Predetermined Antigens TELECOMMUNICATION INFORMATION: TELEPHONE: (201) 235-6208 APPLICATION NUMBER: FILING DATE: 199202 TELEPHONE: INFORMATION: Application US/07843125 340 Kingsland Street 19920228 US/07/843,125 rine R 34240 8594 Hoffmann-La Roche Inc

Conservative

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Score 35; DB Pred. No. 14; 0; Mismatches

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Length 246; Indels

0;

Gaps

0,

83.3%; 87.5%;

RESULT 2 US-08-973-068-5

Sequence 5, Application US/08973068 Patent No. 6127604

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Dale, James Langham
APPLICANT: Dugdale, Benjamin
APPLICANT: Buddale, Benjamin
APPLICANT: Beetham, Peter Ronald
APPLICANT: Beetham, Peter Ronald
APPLICANT: Becker, Douglas Kenneth
TITLE OF INVENTION: INTERCENIC REGIONS OF BANANA BUNCHY TOP VIRUS
FILE REFERENCE: 09657/002001
CURRENT APPLICATION NUMBER: US/08/973,068
CURRENT APPLICATION NUMBER: US/08/973,068
CURRENT FILING DATE: 1996-03-12
EARLIER APPLICATION NUMBER: PCT/AU96/00335
NUMBER OF SEQ ID NOS: 61
SOFTWARE: FastSEQ for Windows Version 3.0
TENCTH: 117

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US-08-863-010-3
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                                                                    INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/863,010
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 963 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6087146
GENERAL INFORMATION:
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Best Local Similarity

Matches 6; Conserv
                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 08/537,002

FILING DATE: 29-SEP-1995

APPLICATION NUMBER: UP 260984/1994

FILING DATE: 01-OCT-1994

PRIOR APPLICATION NUMBER: JP NO. 6087146 yet received FILING DATE: 08-SEP-1995
                                                                                                                                 NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: TSI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-528-5197
    OLECULE TYPE:
                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                             TELLEFAX: 20
TELEFAX: 248633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SUGIMOTO, TOShiyuki
TITLE OF INVENTION: CONVERTING MALTOSE INTO TREHALOSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: KUBOTA, Michio APPLICANT: KUBOTA, Michio APPLICANT: SUGTMOTO
                             STRANDEDNESS:
                                                                                                        TELEPHONE: 202-737-3528
                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Washington STATE: D.C.
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STRANDEDNESS: si
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                                        amino acid
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                                                         963 amino acids
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419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                linear
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100.0%
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US-08-537-002A-3

Sequence 3, Application US/08537002A Patent No. 5773282

GENERAL INFORMATION:

APPLICANT: TSUSAKI, Keiji
APPLICANT: KUBOTA, Michio
APPLICANT: SUGIMOTO, TOShiyuki
TITLE OF INVENTION: RECOMBINANT THERMOSTABLE ENZYME FOR
TITLE OF INVENTION: CONVERTING MALTOSE INTO TREHALOSE
NUMBER OF SEQUENCES: 17

NUMBER OF SEQUENCES: 1

ADDRESSEE:

CITY: Washington STATE: D.C.

419 Seventh Street, N.W., Suite 300

BROWDY AND NEIMARK

COUNTRY: STREET:

USA

20004

APPLICATION NUMBER: US/08/537,002A FILING DATE: 29-SEP-1995 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: UP 260984/1994 PRIOR APPLICATION DATA:

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTION DATA:
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:

APPLICATION NUMBER: JP No. 5773282 yet received FILING DATE: 08-SEP-1995
ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, ROGET L.
REGISTRATION NUMBER: 25,618

NUMBER: TSUSAKI-1

B

75 GRGIVED 81

1 GRGLVQD 7

Query Match
Best Local Similarity
""" by 5; Conserve

Conservative

Score 31; Pred. No. Mismatches

DB 4; Length 117; 37;

0;

Gaps

; ORGANISM: Banana Bunchy Top Virus (BBTV) US-08-973-068-5

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В
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                                                                                                                               ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-09-024-429-3
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Best Local Similarity
Matches 6; Conserv
                                                          Matches
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                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 37,971
REFERENCE/DOCKET NUMBER: TS
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 01-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 255829/1995
FILING DATE: 08-SEP-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 00 FILING DATE: 29-SEP-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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TELEFAX: 248633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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 725 GLVQDG 730
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                          Local Similarity les 6; Conserv
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                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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                             3 GLVQDG 8 ·
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TSUSAKI, Keiji
KUBOTA, Michio
SUGIMOTO, Toshiyuki
NVENTION: RECOMBINANT THERMOSTABLE ENZYME FOR
NVENTION: CONVERTING MALTOSE INTO TREHALOSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                       73.8%; Score 31; DB
100.0%; Pred. No. 3.4
Live 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 08/537,002
                                                                                                                                                                                                                                                                                                                                                                                                                                   JP 260984/1994
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Pred. No.
                                                                     DB 4; 1
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. 3.4e+02;
                                                                                    Length 963;
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US-08-545-809A-143
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Best Local Similarity
Watches 6; Conservi
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US-08-464-339A-12
                                                                                                                                                                                                      Sequence 143, Application US/08545809A Patent No. 6096878
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                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 90 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: L:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/N
FILING DATE: 9 DEC 1994
ATTORNEY/AGENT INFORMATION:
NAME: MULLINS, J.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                           APPLICANT: Honjo, Tasuku
APPLICANT: Matsuda, Fumihiko
TITLE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE
TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: HASTINGS, TITLE OF INVENTION: FITTLE OF INVENTION: FOR SEQUENCES:
                                                                                                  NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
COUNTRY: US
                                                                                                                                                                                                                                                                                               42 GVGLVRDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: UFILING DATE: June 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
                                                       CITY: Boston
                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 33,073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
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                                                                                                                                                                                                                                                                                                                          1 GRGLVODG 8
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5. 5747280
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                                                                      225 Franklin Street
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                                                                                       Fish &
                                                                                                                                                                                                                                                                                               49
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                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEIN
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: 17
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                                                                                                                                                                                                                                                                                                                                                                      71.4%;
75.0%;
                                                                                    Richardson, P.C
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Human Vascular IBP-Like Growth
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                      NO;
                                                                                                                                                                                                                                                                                                                                                                                   Length 90;
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US-08-468-847B-12
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Best Local Similarity /
Conservat!
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TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-545-809A-143
                     INFORMATION FOR SEQ ID NO:
                                   FILING DATE:
ATTORNEY/AGENT INFORMATION:
ATTORNEY AGENT INFORMATION:
NAME: MULLINS, J.G.
REGISTRATION NUMBER: 33,073
REFERENCE/DOCKET NUMBER: 3256
TELECOMMUNICATION INFORMATION:
TELEPIONE: 201-994-1700
TELEPIAN: 201-994-1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12, Application US/08468847B Patent No. 5780263
                                                                                                                                                            APPLICATION NUMBER: US/08/468,847B FILING DATE: 6 June 1995 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 617-542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 143:
SEQUENCE CHARACTERISTICS:
LENGTH: 116 amino acids
TYPE:
                                                                                                                                                                                                                                                 COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/:
FILING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION UNMBER: PCT/JP:
APPLICATION UNMBER: PCT/JP:
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: HUNDMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                         CITY: ROSELAND
STATE: NEW JERSEY
COUNTRY: USA
ZIP: 07068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Freeman, John W. REGISTRATION NUMBER: 29,066 REFERENCE/DOCKET NUMBER: 06: TELECOMMUNICATION INFORMATION: 617-542-5970
                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILIAN, ADDRESSEE: CECCHI, STEWART & OLSTEIN STREET: 6 BECKER FARM ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27 GEGLVQPG 34
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GRGLVODG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 617-542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hastings, Gregg A. and Adams, Mark D. VENTION: Human CCN-Like Growth Factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM Compatible
                                                                                                                                                                                                                                                                                                                    INCH DISKETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71.4%; Score 30; 75.0%; Pred. No.
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                                                                                  325800-442
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 RESULT
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Best Local Similarity
""" 6; Conserve
                                                                                                                                                                                              TYPE: AMINO ACID
STRANDEDNESS:
TOPOLOGY: LINEAR
MOLECULE TYPE: PROTEIN
US-08-459-101A-2
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Best Local Similarity 75.0%.
Best Local Similarity 75.0%.
Conservative
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MOLECULE TYPE:
US-08-468-847B-12
                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/459,101A
FILING DATE: June 2,1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/07736
FILING DATE: 12 JUL 94
ATTORNEY/AGENT INFORMATION:
NAME: FERRARO, GREGORY D.
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-317
TELEPHONE: 201-994-1700
TELEPHONE: 201-994-1700
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                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 375 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: WORD PERFECT CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 6 CL.
STREET: NOSELAND
CITY: ROSELAND
CTATE: NEW JERSEY
                                             42 GVGLVRDG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
ADDRESSEE: CECCHI, STEMART & OLSTEIN
STREET: 6 BECKER FARM ROAD
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: (
                                                                             1 GRGLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 374 AMINO ACIDS
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PS/
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: UZIP: 07068
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42 GVGLVRDG 49
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                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                               201-994-1744
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                                                                                                                         71.48;
75.08;
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75.0%;
                                                                                                                         Score 30; |
Pred. No. 1
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Pred. No. 1.9e+02;
                                                                                                      Mismatches
                                                                                                                      .9e+02;
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US-08-468-847B-11

Sequence 11,

Application US/08468847B

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; MOLECULE TYPE:
US-08-468-8478-11
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Matches 6; Conservative
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                                                                                                                                                                                                                                                                                           Sequence 34, Appli
Patent No. 5831058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 379 AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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FILING DATE: 6 June 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOCTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                             NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Hastings, Gregg A. and Adams, Mark D.
TITLE OF INVENTION: Human CCN-Like Growth Factor
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                   APPLICANT: TSUTOMU, FUJIWARA
APPLICANT: Takeshi, WATANABE
APPLICANT: Masatto, HORIE
APPLICANT: Toyomasa, KATAGIRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                 PPLICANT: TOYOMASA, KATAGIRI ITLE OF INVENTION: HUMAN GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: ROSELAND
STATE: NEW JERSEY
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 379 AMINO ACIDS TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: MULLINS, J.G.
REGISTRATION NUMBER: 33,073
REFERENCE/DOCKET NUMBER: 32
                                    COUNTRY: United States ZIP: 20037-3202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 6 BECKER FARM ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILIAN, ADDRESSEE: CECCHI, STEWART & OLSTEIN
                                                                                      CITY: Washington
                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                          42 GYGLYRDG 49
                                                                                                                                                                                                                                                                                                                                                                                                                           1 GRGLVQDG 8
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                                                                                                                              ADDRESSEE:
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                                                                        D.C.
                                                                                                                                                                                                                                                                                                                Application US/08820170A
                                                                                                       3E: Sughrue, Mion, Zinn, Macpeak & Seas
2100 Pennsylvania Avenue, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LINEAR
Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71.4%;
75.0%;
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Pred. No. 2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 379;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-09-055-699-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                             TELEX: 6491103 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFORMATION FOR SEQ ID NO:
TOPOLOGY: 1i
MOLECULE TYPE:
9-055-699-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tent No.
                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patenth Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITTLE OF INVENTION: HUMAN GENE NUMBER OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
ADDRESSES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 293-7060
TELEFAX: (202) 293-7860
TELEFAX: (491103
                                                                                                                                                                                                        PRIOR APPLICATION DATA:
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                                                                            SEQUENCE CHARACTERISTICS
                                                                                                                                                        TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE:
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CLASSIFICATION: 536
                                                                                                                          TELEPHONE: (202) 293-7060
TELEFAX: (202) 293-7860
                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                    STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
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                                                           ENGTH:
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                                                                                                                                                                                                                                                                                                                                                                      RY: United States 20037-3202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1, Application US/09055699 6005088
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amino acid
                                            amino acid
                                                           810 amino acids
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2100 Pennsylvania Avenue, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Toyomasa,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Takeshi, WATANABE
Masato, HORIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tsutomu, FUJIWARA
              protein
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57.18;
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Pred. No.
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Best Local Similarity 57.1 Matches 4; Conservative

US-09-273-565-34

GENERAL INFORMATION:

APPLICANT: FUJIWARA, TSUTOMU APPLICANT: WATANABE, TAKESHI APPLICANT: HORIE, MASATO

Patent No.

6166190

Application US/09273565A

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TITLE OF INVENTION: SKELETAL MUSCLE-SPECIFIC UBIQUITIN-CONJUGATING ENZYME
FILE REFERENCE: 0-35599
FILE REFERENCE: 0-53599
CURRENT APPLICATION UNMBER: US/09/273,565A
CURRENT FILING DATE: 1999-03-22
EARLIER APPLICATION NUMBER: 09/055,699
EARLIER FILING DATE: 1998-04-07
EARLIER FILING DATE: 1998-04-07
EARLIER FILING DATE: 1998-04-07
EARLIER FILING DATE: 1997-03-19
EARLIER FILING DATE: 1997-03-19
EARLIER FILING DATE: 1997-03-19
EARLIER FILING DATE: 1997-03-05
EARLIER APPLICATION NUMBER: JP 63410/1996
EARLIER APPLICATION NUMBER: JP 69163/1997
EARLIER APPLICATION NUMBER: JP 69163/1997
EARLIER FILING DATE: 1997-03-05
NUMBER OF SEQ ID NOS: 955
COPPENABLE: SEQ ID NOS: 955
CO
                                                                                                  COUNTRY: United States of America
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTE: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25 (EPO)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                             E: Marshall, O'Toole, Gerstein, Murray & Borun 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Specific binding members, materials and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              57.1%; Pred. No. 4.4e+02; ative 3; Mismatches 0;
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US-08-318-157B-2
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Best Local Similarity /3.v.,
Best Local Similarity /3.v.,
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: GB 9525004.9
ETILING DATE: 07-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION UNMBER: GB 9610824.6
ETILING DATE: 23-MAY-1996
PRIOR APPLICATION UNMBER: PCT/GB92/02240
FILING DATE: 02-DEC-1992
PRIOR APPLICATION UNMBER: PCT/GB92/02240
FILING DATE: 02-DEC-1992
PRIOR APPLICATION UNMBER: US 08/244,597
APPLICATION NUMBER: US 08/244,597
APPLICATION UNMBER: 36,107
REGISTRATION NUMBER: 36,107
BETERBURGE TONGTERMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                   ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: HANSEN, APPLICANT: ARMOUR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
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TELECOMMUNICATION INFORMATION:
                                       APPLICATION NUMBER: US/08/318,157B FILING DATE: 05-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                 STREET: 3000 K St
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APPLICATION NUMBER: GB 9206372.6
FILING DATE: 23-SEP-1992
                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                          STATE:
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
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                                                                                                                                                                                                                                                                                                                      USA
INFORMATION:
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24-MAR-1992
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CDR-GRAFTED TYPE III ANTI-CEA HUMANIZED MOUSE MONOCLONAL ANTIBODIES
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RESULT 14 US-08-652-816A-12

Patent No. 5872215
GENERAL INFORMATION:

APPLICANT: Osbourn, JK
APPLICANT: Allen, DJ
APPLICANT: MCCafferty, JG

TITLE OF INVENTION: Specific TITLE OF INVENTION: methods. NUMBER OF SEQUENCES: 53 CORRESPONDENCE ADDRESS:

STREET: 6300 : CITY: Chicago

Illinois

ADDRESSEE:

APPLICATION NUMBER: FILING DATE: 23-MA

MBER: US/08/652,816/ 23-MAY-1996

Sequence 12, Application US/08652816A Patent No. 5872215

B

201 KGIIQDG 207

2 RGLVQDG 8

; ORGANISM: Homo sapiens US-09-273-565-34

Query Match

Local Similarity 57.: hes 4; Conservative

71.48; 57.18;

SOFTWARE: PatentIn Ver. SEQ ID NO 34 LENGTH: 810

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REGISTATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 18733/464
REFERENCE/DOCKETON
REFERENCE/DOCKE
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        and is derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.
                                                                                                                                                                                                                                                                                                                         Score
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seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A_Geneseq_0401:*

1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
4: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
5: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
6: /SIDS6/gcgdata/geneseq/geneseqp/AA1984.DAT:*
6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
7: /SIDS6/gcgdata/geneseq/geneseqp/AA1987.DAT:*
8: /SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*
10: /SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*
11: /SIDS6/gcgdata/geneseq/geneseqp/AA1991.DAT:*
13: /SIDS6/gcgdata/geneseq/geneseqp/AA1991.DAT:*
14: /SIDS6/gcgdata/geneseq/geneseqp/AA1992.DAT:*
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17: /SIDS6/gcgdata/geneseq/geneseqp/AA1995.DAT:*
18: /SIDS6/gcgdata/geneseq/geneseqp/AA1997.DAT:*
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22: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
23: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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29: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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21: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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1.995 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGVCVQPG 8
                                                                                                                                                                                                                                                                                                                            Length
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B41638
B41638
W88390
W88390
Y59870
Y52139
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Y79121
W88384
                                                                                                                                                                                             W88389
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                        Human Zneul partia
Human ORFX ORF1482
Human ORFX ORF1402
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Human Zneul partia
Human normal uteru
Human TANGO 125b (
                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                Peptide antagonist
Peptide antagonist
Human Zneul EGF-li
neuro-growth
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	بر 8	38	3 8	38	38	38	38	38	38.	38	38	38	39	39	40	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
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į	38	17	18	17	15	20	22	21	21	21	20	20	21	21	21	21	21	20	21	21	21	21	21	21	21	21	21	21	21	20	20	20	20	21
	W24014	R97614	W24015	R97615	R48994	W88726	B53076	Y44822	Y70669	B24397	Y13345	Y08065	Y79118	Y79105	Y79125	B41644	B44241	Y41685	Y52137	в01376	B24044	B24043	B24042	в18675 .	B18674	в18673	B44327	B44326	B44325	W88381	-	Y41770	-	4
		7	Human N-acetylgluc	Rat N-acetylglucos	Human glycosyltran	Secreted protein e	Human anglogenesis	Human molecule ass	PR0217	Human PRO217 prote		GF-like ho	antagonis	Peptide antagonist	Peptide antagonist	Human ORFX ORF1408	Human PRO213 (UNQ1	Human PRO213 prote	Human TANGO 125 (T	Neuron-associated	PR01449 pro	Human PRO1330 prot	PRO21	Amino acid sequenc	acid	acid sec	PRO1449	PR01330 F	PRO213	Human neuro-growth	PR01449 pro	330 £	13-1 pr	Human ORFX ORF1968

ALIGNMENTS

RESULT Y79117

Y79117 standard; Peptide; 8

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Peptide antagonist of zonulin.

05-JUN-2000 Y79117;

(first entry)

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Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antilnflammatory; cerebroprotective; neuroprotective; dermatological; antilcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                              03-AUG-1998;
                                                                                                 28-JUL-1999;
                                                                                                                    17-FEB-2000
                                                                                                                                        WO200007609-A1
                                                                                                                                                            Synthetic.
                                                         (UYMA-) UNIV MARYLAND BALTIMORE
                                                                              98US-0127815
                                                                                                 99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

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CC (2), one of 25 such peptides (see 1/3107-2) or the complete of the peptide antagonists are based on a common motif of ZOT binding. The peptide antagonists are based on a common motif of ZOT binding. They can be prepared by chemical synthesis or by use of CC and human zonulins, which is believed to be critical for receptor CC recombinant DNA techniques. The peptide antagonists are used as an inflammation, where they bind to the ZOT receptor in the intestinal CC and yet does not physiologically modulate the opening of Ty in the CC intestine. Gastrointestinal inflammation conditions give rise to CC increased intestinal permeability and the peptide is useful for CC caused by infection, e.g. clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite CC mucosal erosion or ulcerations, e.g. gastrilis, gastric cancer collagenous colitis, inflammatory bowel disease, diseases with CC sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical CC correction of congenital heart disease with Fontan's operation, cc collag disease, without ulceration, e.g. Menettier's disease, cc. e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ££x&x333333333333333333333333333333
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Best Local S
Matches 8
                                           03-AUG-1998;
                                                                                                                                                                                                                                                       blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
(UYMA-) UNIV MARYLAND BALTIMORE
                                                                                   28-JUL-1999;
                                                                                                                          17-FEB-2000
                                                                                                                                                                  W0200007609-A1
                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                 gastrointestinal
                                                                                                                                                                                                                                                                                                                       Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antlinflammatory; cerebroprotect
                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                       Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y79121 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y Match 100.0%;
Local Similarity 100.0%;
hes 8; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     بر
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              present sequence is one of 25 such pepti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA;
                                         98US-0127815
                                                                              99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    equence is that of a peptide antagonist of zonulin such peptides (see Y79105-29) of the invention, a zonula occludens toxin (ZOT) receptor, yet do not
                                                                                                                                                                                                                                               inflammation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 47; DB 21;
Pred. No. 3.2e+05;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
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W88384
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
     18-JUN-1997;
                                                                                                                                                             Zneu-1; neuro-growth factor-like protein; human; breast cancer; glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopoiesis; fertility; contraception; antibody; epidermal growth factor; EGF.
                                  18-JUN-1998;
                                                                                                       W09857983-A2
                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                        Human Zneul EGF-like domain
                                                                                                                                                                                                                                                                                                                                W88384;
                                                                                                                                                                                                                                                                                                                                                           W88384 standard;
                                                                                                                                                                                                                                                                                              26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGVCVQPG 8
||:||||
1 gglcvqpg 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 46; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-205565/18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 7; Conserv
                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
97US-0878322
                                98WO-US12763.
                                                                                                                                                                                                                                                                                                                                                           Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93.6%;
                                                                                                                                                                                                                                                                                                                                                           31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 44; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21; 1
3.2e+05;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ZOT) receptor, yet do not mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
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18-JUN-1997;

97US-0050143

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Query Match
Best Local Similarity
""" Conserv
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                                          Blumberg
Wh1tmore
                                                                                                                                                                                                                                                                                                                                                                                                          Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopolesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This peptide comprises the first epidermal growth factor-like domain (EGF-1), i.e. amino acid residues 105-135, of human Zneul (see W8831), a new neuro-growth factor-like protein. Zneul can used as a growth, maintenance, or differentiation factor in the
WPI; 1999-095324/08
                                                                                                                                                                                                                  18-JUN-1998;
                                                                                                                                                                                                                                                                                                   W09857983-A2
                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Zneul partial polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , 68E8BM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W88389 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnostic assays.
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                                                                                                                                                 18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                                                                                          23-DEC-1998
                                                                                                      (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ZYMO ) ZYMOGENETICS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GGVCVQPG 8
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                                          TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             alian Zneul polypeptides - used to, e.g. treat Alzheimer's cancer and to repopulate blood cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jelinek LJ,
                                                            Jelinek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                               97US-0878322
97US-0050143
                                                                                                                                                                                                                98WO-US12763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87.2%;
87.5%;
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                                                              Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lehner JM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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RESULT
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Best Local S
Matches 7
                             31-MAR-1999;
02-APR-1999;
05-APR-1999;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                heart, spleen, testis, thyroid and lymph nodes. zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also w88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                             Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; caardiant immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory;
                                                                                                                                                                                                                                                             cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; andaria; autoimmune disorder; asthma; altergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                                                                                                                                                                                                                                                                                                             antianaemic; gene therapy; cancer; proliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth factor-like domains (see also W88384-85) of Zneul. a new neuro-growth factor-like protein that can be used as
                                                                                                                                               05-OCT-2000
                                                                                                                                                                               WO200058473-A2
                                                                                                                                                                                                                                                                                                                                                                               antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human ORFX ORF1482 polypeptide sequence SEQ ID NO:2964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B41718 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth, maintenance, or differentiation factor in the spinal cord,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This claimed polypeptide comprises amino acid residues 105-177 of the human Zneul mature protein (see W88382), i.e. the 2 epidermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 6; Page 57; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New mammalian Zneul disease, cancer and
                                                                                                              31-MAR-2000; 2000WO-US08621.
                                                                                                                                                                                                              Homo sapiens.
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                             99US-0127607.
99US-0127636.
99US-0127728.
2000US-0540763.
                                                                                                                                                                                                                                               contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides . to repopulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87.2%;
87.5%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                       antianaemic; gene therapy; cancer; proliferative disorder; hyperter neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AI cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; ast allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulatic
                                                                                                                                                                                                Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antifungal; antirhumatic; antithyroid;
                                                                  thrombosis;
                                                                                                                                                                                                                                                                                                                                Human ORFX ORF1402 polypeptide sequence SEQ ID NO:2804.
                                                                                                                                                                                                                                                                                                                                                                                 08-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                   B41638 standard; Protein; 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Page 2200; 5507pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GGVCVQPG 8
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19 ggscvqpg 26
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DB; C75927.
                                                                contraceptive.
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                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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87.5%;
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Pred. No. 13;
0; Mismatches
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                                                                                                                                                                                  hypertension
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                                                                                                          asthma,
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Homo sapiens

WO200058473-A2

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                                                                                                                                                                                                                                                                                                                                                                                                                                     CC C74446 to C77606 encode the proteins given in B40237 to B43397, which CC represent the human ORFX open reading frames 1 to 3161. The ORFX CC sequences have activities such as: cytostatic; hepatotropic; vulnerary; CC antipsoriatic; antiparkinsonian; nootropic; neuroprotective; osteopathic; CC anticonvulsant; antiarthritic; immunosuppressant; immunostimulant; cc dermatological; immunosuppressive; antiinflammatory; antibacterial; CC dermatological; immunosuppressive; antiinflammatory; antibacterial; CC antiviral; antifungal; antirheumatic; antiinflammatory; antibacterial; CC sequences can be used for determining the presence of or predisposition or preventing or treating pathological conditions associated with an CC proteins in gene therapy vectors. The proteins and nucleic acids may be CC used to treat cancers, proliferative disorders, neurodegenerative CC disorders, osteoarthritis, graft vs host disease, cardiovascular disease, CC storage, systemic lupus erythematosus, severe combined immunodeficiency CC (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune CC cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local 9
              Homo sapiens
                                                           nerve regeneration;
                                                                         glioblastoma;
                                                                                                                       Human Zneu1
                                                                                                                                                     26-APR-1999
                                                                                                                                                                                                            W88388 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
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N-PSDB; C75847.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-MAR-1999; 99US-0127607.
02-APR-1999; 99US-0127636.
05-APR-1999; 99US-0127728.
30-MAR-2000; 2000US-0540763.
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                                                                                                                                                                                                                                                                                         91
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAR-2000; 2000WO-US08621
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                                                                                                                                                                                                                                                                                                       1 GGVCVQPG 8
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                                                                                                                                                                                                                                                                                       ggscvqpg
                                                 neuro-growth factor-like protein; human; breast
stoma; pituitary adenoma; Alzheimer's disease; the
egeneration; haematopoiesis; fertility; contracer
                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           153
                                                                                                                partial polypeptide.
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                       98
                                                                                                                                                                                                                                                                                                                                                                                                                           AA
                                                                                                                                                entry)
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87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X
                                                                                                                                                                                                                                                                                                                                           Score 41; DB Pred. No. 17; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                0;
                                                     fertility; contraception
                                                                                                                                                                                                                                                                                                                                                                         21;
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                                                                                                                                                                                                                                                                                                                                                                        Length 153
                                                                                                                                                                                                                                                                                                                                           0;
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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This claimed polypeptide comprises amino acid residues 1-158 of the human Zneul mature protein (see W88382), i.e. the first HSMHC3W5A homology domain and first EGF-like domain of Zneul. Zneul is a new neuro-growth factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibrobiast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to repopulate blood cells after demotherapy.
                                                                                                                                       Zneu-1; neuro-growth factor-like protein; human; brea
glioblastoma; pituitary adenoma; Alzheimer's disease;
nerve regeneration; haematopoiesis; fertility; contra
 18-JUN-1997;
                        18-JUN-1998;
                                                  23-DEC-1998.
                                                                            W09857983-A2
                                                                                                   Homo sapiens
                                                                                                                            antibody.
                                                                                                                                                                                           Human Zneul partial polypeptide.
                                                                                                                                                                                                                    26-APR-1999
                                                                                                                                                                                                                                              W88390;
                                                                                                                                                                                                                                                                      W88390 standard; Protein; 169 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease,
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18-JUN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       including specific zneul, can be used
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   regenerate nerves.
                                                                                                                                                                                                                                                                                                                                  1 GGVCVQPG 8
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95 ggscvqpg 102
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nes 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          alian 2neul polypeptides - used to, e.g. cancer and to repopulate blood cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                    158 AA
                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jelinek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56; 70pp;
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97US-0050143.
97US-0878322
                         98WO-US12763
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                 Score 41; DB
Pred. No. 17;
                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                                                        isease; therapy;
contraception;
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                                                                                                                                                                                                                                                                                                                                                                                                             Length 158
                                                                                                                                                                breast
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                                                                                                                                                                cancer;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used
                                               N-PSDB;
                                                                           WPI; 1999-591956/51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This claimed polypeptide comprises amino acid residues 105-273 of the human Zneul mature protein (see W88382), i.e. the 2 epidermal growth factor-like domains (see also W88384-85) and the second the M8385A homology domain of Zneul. Zneul is a new neuro-growth factor the compression of zneul.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                Rosenthal A,
                                                                                                                                                                                                                                        17-APR-1998;
                                                                                                                                                                                                                                                                                          17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                     DE19817946-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human normal uterus tissue derived protein 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y59870 standard; Protein; 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                raise specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mammalian Zneul polypeptides - used to, e.g. treat Alzheimer's disease, cancer and to repopulate blood cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-095324/08
                                                                                                                                                                                   (META-) METAGEN GES GENOMFORSCHUNG MBH.
                                                                                                                                                                                                                                                                                                                                               21-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GGVCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 57-58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                        98DE-1017946
                                                                                                                                                                                                                                                                                          98DE-1017946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer; treatment; anticancer; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0050143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tag.
                                                                                                                           Hinzmann B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 41; DB
Pred. No. 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                             Schmitt A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnostic assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 169
                                                                                                                           Pilarsky C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                             Dahl
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New nucleic acid sequences expressed in normal uterine tissues,

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Y52139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CC This invention describes novel cDNA sequences (A) highly expressed in CC normal uterine tissue which can have anticancer and cytostatic activity CC and can be used for gene therapy. (A) are used (i) for recombinant CC expression of polypeptides (B) and (ii) to isolate complete genes. (C (B) are used (i) to identify agents suitable for treatment of uterine compared to the complete genes. (A) directly for treating this form of cancer (including CC expression from gene therapy vectors) and (iii) for generation of CC expression from gene therapy vectors) and (iii) for generation of CC expression patterns. (A) are identified by assembling ESTs (expressed CC expression patterns. This allows a significantly longer fragment of the CC expression patterns. This allows a significantly longer fragment of the CC expression patterns. This allows a significantly longer fragment of the CC expression patterns to so should reduce the number of failures associated CC different parts of the same unknown gene, distorting the estimated CC frequency of occurrence in a particular tissue. Y59838-Y59892 represent CC protein fragments encoded by the human uterine tissue derived cDNA xx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
Y52138-Y52140 are amino acid sequences of spliced variants (T125). The T125 protein (Y52137) has two epidermal growth
                                                  Example 4; Fig
                                                                                 Novel polynucleotides and cellular processes -
                                                                                                                             WPI; 2000-013240/01
N-PSDB; Z37133.
                                                                                                                                                                       Holtzman DA;
                                                                                                                                                                                                                               23-APR-1998;
23-APR-1999;
                                                                                                                                                                                             (MILL-) MILLENNIUM BIOTHERAPEUTICS
                                                                                                                                                                                                                                                                         23-APR-1999;
                                                                                                                                                                                                                                                                                                                                 W09954437-A2
                                                                                                                                                                                                                                                                                                                                                                                          secreted protein; agonist; forensic biology.
                                                                                                                                                                                                                                                                                                                                                                                                                TANGO 125; T125; alternative splice variant;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Human TANGO 125b (T125b) amino acid sequence
                                                                                                                                                                                                                                                                                                       28-OCT-1999
                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y52139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y52139 standard; Protein; 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               derived polypeptides, for treatment of uterine cancer and identification of therapeutic agents \,\cdot\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GGVCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                224 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                  6; 120pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72
                                                                                                                                                                                                                            98US-0065363
99US-0065363
                                                                                                                                                                                                                                                                      00680SD-OM66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      134; 154pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87
87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .5%;
                                                English
                                                                                          polypeptides used
                                                                                                                                                                                                                                                                                                                                                                                                 ve splice variant; EGF domain; antibody;
antagonist; predictive medicine; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     core 41; DB red. No. 23; Mismatches
                                                                                                                                                                                                INC
                                                                                         to modulate a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 224;
                                                                                       variety
 of TANGO 125
factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                       of.
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RESULT 11
W88382
ID W88382
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 87:
Matches 7; Conservative
                                                                 Blumberg
Whitmore
                                    WPI; 1999-095324/08
                                                                                                                                 18-JUN-1997;
18-JUN-1997;
                                                                                                     (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                         18-JUN-1998;
                                                                                                                                                                                                     23-DEC-1998
                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zneu-1; neuro-growth factor-like protein; human; breast cancer; glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human neuro-growth factor-like protein Zneul mature polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EGF)-like domains at amino acids 107-134 and 141-176 and is predicted to have a molecular weight of approximately 30kD. T125 is predicted to have rotansmembrane domains and appears to be a secreted protein. The sequences of all variants of T125 are used in the invention to create antibodies which selectively bind to T125. The T125 polypeptide is used to modulate a variety of cellular processes. It can be used to produce to identify T125 antagonists and agonists. The T125 polypucleotides, and polypeptides, homologues and antibodies can be used to produce antibodies, and polypeptides, homologues and antibodies can be used in screening assays; predictive medicine; and methods of treatment of T125 associated disorders. The T125 polynucleotides can be used to express the protein; to detect T125 mRNA; to detect genetic alterations in the T125 gene; in forensic biology; and as a source of primers and probes.
                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W88382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W88382 standard; Protein; 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                           g H,
TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247 AA;
                                                                           Jelinek LJ,
                                                                                                                               97US-0878322.
97US-0050143.
                                                                                                                                                                        98WO-US12763
                                                                                                                                                                                                                                                                                  /note= "(
                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                             117..158
                                                                                                                                                                                                                                                                                                                                                         /note= "hydrophilic domain (HSM1), homologous
                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                  "epidermal growth factor-like domain
                                                                                                                                                                                                                                                                                         "epidermal growth factor-like domain 2"
                                                                                                                                                                                                                                                               "domain_HSM2 homologous to an
                                                                                                                                                                                                                                                                                                                                                   an
                                                                         Lehner JM,
                                                                                                                                                                                                                                                                                                                                                HSMHC3W5A domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 41; DB
Pred. No. 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                       Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                HSMHC3W5A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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New mammalian Zneul polypeptides - used disease, cancer and to repopulate blood

to, e.g.

treat Alzheimer's

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RESULT 12
B42204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This polypeptide comprises human Zneul mature polypeptide. Zneul is a new neuro-growth factor-like protein (see also W88381). Its closest human homologue is HSMHC3W5A, a gene in the HLA class III region, which is contained in a cosmid which contains Notch 4. Zneul is also homologus to Notch 4 in its ECF-like domains and may be involved in ECF receptor pathways. Zneul is widely expressed in adult tissues, with high expression in heart, placenta, spleen, testis, thyroid, spinal cord and lymph node. Zneul can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. It may play a role in breast cancer, glioblastomas, and pituitary play a role in breast cancer, glioblastomas, and pituitary play a role in breast cancer, glioblastomas, and pituitary cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of changes contraceptions are used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                31-MAR-1999;
02-APR-1999;
05-APR-1999;
                                                                                                                                                                                                                                                                                                    antianaemic; gene therapy; cancer; proliferative disorder; hypertension neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
                                                                                                                                                                                                                                                                                                                                                                                                immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antirheumatic; antithyroid; antianaemic; gene therapy; cancer; proliferative disorder; hypert
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsorlatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
                                                                                                          31-MAR-2000; 2000WO-US08621.
                                                                                                                                                05-OCT-2000
                                                                                                                                                                                        WO200058473-A2
                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                      bone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human ORFX ORF1968 polypeptide sequence SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B42204 standard; Protein; 265 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 6; Page 48-49; 70pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GGVCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                  cartilage damage;
                2000US-0540763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102
                                99US-0127607.
99US-0127636.
99US-0127728.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 41; DB
Pred. No. 26;
                                                                                                                                                                                                                                                                                    antiinflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO:3936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 254;
                                                                                                                                                                                                                                                                                    disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                    coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                    hypertension,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dermatological; immunosuppressive; antiinflammatory; antibacterial; antifural; antifungal; antirheumatic; antifutyroid; and antianaemic. The sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an ORRY-associated disorder. The nucleic acids can be used to express ORFY proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative disorders, osteoarthritis, graft vs host disease, cardiovascular disease, diabetes mellitus, hypertension, hypothyroidism, cholesterol ester storage, systemic lupus erythematosus, severe combined immunodeficiency (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, amplastic anaemia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                      Human;
probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antipsoriatic; antiparkinsonian; nootropic; neuroprotective; osteo anticonvulsant; antiarthritic; immunosuppressant; immunostimulant;
                                                                                                                                                                                                                                                                                                                  07-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   represent the human ORFX open reading frames 1 to 3161. The (sequences have activities such as: cytostatic; hepatotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C74446 to C77606 encode the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 11; Page 3102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel nucleic acids and peptides derived from open reading frame X, useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease
                                                                                              08-MAR-1999;
                                                                                                                           16-SEP-1999.
                                                                                                                                                          WO9946281-A2
                                                                                                                                                                                         Homo
                                                                                                                                                                                                                    secreted protein;
                                                                                                                                                                                                                                                                                   Human PRO213-1
                                                                                                                                                                                                                                                                                                                                                Y41769;
                                                                                                                                                                                                                                                                                                                                                                                Y41769 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           114 ggscvqpg 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGVCVQPG 8
                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                    PRO; EST; expressed sequence tag; PCR primer; hybridisation; blood coagulation disorder; cancer; cellular adhesion disord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                  (first entry)
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              98US-0077450.
98US-0077632.
98US-0077641.
98US-0077649.
                                                                                                                                                                                                                                                                                   protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                            99WO-US05028
                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                       transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5507pp; English.
                                                                                                                                                                                                                                                                                                                                                                                273 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 41; DB Pred. No. 27; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  proteins given in B40237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
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The ORF?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORFX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     osteopathic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vulnerary;
                                                                                                                                                                                                                                       disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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26-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998;

13-MAR-1998; 17-MAR-1998; 20-MAR-1998; 20-MAR-1998; 20-MAR-1998; 20-MAR-1998; 25-MAR-1998;

> 98US-0078004. 98US-0040220. 98US-0078886. 98US-0078910. 98US-0078936.

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RESULT 14
Y41770
ID Y41770;
XX
AC Y41770;
XX
DT 07-DEC-
XX
DT 07-DEC-
XX
W Human P
XX
Human P
XX
Human P
XX
Human;
KW Probe;
KW Probe;
KW Secrete
XX
Homo sal
XX
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Best Local S
Matches 7
  10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                          Human; PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disorder; secreted protein; transmembrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO1330
                                                                                                                                                                        16-SEP-1999
                                                                                                                                                                                                                        W09946281-A2
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114 ggscvqpg 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 233891 to 234338, and Y41685 to Y41774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-DEC-1999
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N-PSDB;
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22-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
28-MAY-1998
28-MAY-1998
30-UUL-1998
31-UUL-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular adhesion disorders -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1999-551358/46.
DB; Z34311.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 87.9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             273 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                             protein sequence
98US-0077450.
98US-0077632.
98US-0077641.
98US-0077649.
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98US-0086392.
98US-00864314.
98US-0086430.
98US-0087098.
98US-0087208.
98US-0087208.
98US-0087208.
                                                                                                                     99WO-US05028
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein; 273
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 41; DB Pred. No. 28; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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28;
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30 - MAR - 1998 31 - MAR - 1998 01 - APR - 1998 01 - APR - 1998 08 - APR - 1998 09 - APR - 1998 15 - APR - 1998 21 - APR - 1998 22 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 25 - APR - 1998 27 - APR - 1998 29 - A

98US-0078939
98US-0079663
98US-0079663
98US-0079663
98US-0079664
98US-0079664
98US-0079689
98US-0079728
98US-0080105
98US-0080105
98US-0080105
98US-0080105
98US-0080107
98US-008129
98US-008129
98US-008129
98US-0081817
98US-0081839
98US-0082568
98US-0083392
98US-0083496
98US-0083496
98US-0083558
98US-0083558
98US-0084411
98US-0084441
98US-0084637
98US-0084637
98US-0084637
98US-0084633
98US-0085580
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98US-0085570
98US-0085570

Chen ŗ,

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98US-0077791
98US-0077891
98US-0078086
98US-0079663
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98US-0080323
98US-0080177
98US-0080177
98US-0080177
98US-008177
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98US-0081817
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Best Local Similarity
Matches 7; Conserv
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18-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
28-MAY-1998;
28-MAY-1998;
30-JUL-1998;
11-SEP-1998;
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                    Human;
probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 23891 to 234338, and val685 to val774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                        probe; blood coagulation disorder; cancer;
secreted protein; transmembrane protein.
                                                                                                                                                                                                                                                                                                                   1 GGVCVQPG 8
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114 ggscvqpg 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New secreted and tra
useful for treating
adhesion disorders -
                                               08-MAR-1999;
                                                                      16-SEP-1999
                                                                                                                  Homo sapiens
                                                                                                                                                                                       Human PRO1449 protein sequence
                                                                                                                                                                                                                07-DEC-1999
                                                                                                                                                                                                                                      Y41771;
                                                                                                                                                                                                                                                            Y41771
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 215; 530pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-551358/46.
N-PSDB; Z34312.
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                                                                                            WO9946281-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WI,
                                                                                                                                                    PRO; EST; expressed sequence tag; PCR primer; hybridisation; blood coagulation disorder; cancer; cellular adhesion disorder;
                                                                                                                                                                                                                                                            standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                             273 AA;
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                      121
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98US-0086032.
98US-0086414.
98US-0086410.
98US-0086486.
98US-0086486.
98US-0087208.
98US-0094651.
98US-0100038.
98US-0077450.
98US-0077632.
98US-0077641.
                                               99WO-US05028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              transmembrane polypeptides and ing blood coagulation disorders,
                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                                                                                                                                                                                                              87.2%;
87.5%;
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                                                                                                                                                                                                                                                             273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                              Score 41; DB
Pred. No. 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Þ
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                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              their polynucleotides, cancers and cellular
                                                                                                                                                                                                                                                                                                                                                                                         Length 273;
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Indels

0

Gaps

0

13 - MAR 1998 17 - MAR 1998 17 - MAR 1998 20 - MAR 1998 20 - MAR 1998 20 - MAR 1998 20 - MAR 1998 25 - MAR 1998 26 - MAR 1998 27 - MAR 1998 28 - MAR 1998 31 - MAR 1998 32 - APR 1998 33 - APR 1998 34 - APR 1998 35 - APR 1998 36 - MAY 1998 37 - APR 1998 39 - APR 1998 30 - APR 1998 30 - APR 1998 31 - MAY 1998 31 - M

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Search completed: June 13, 2001, 14:14:36 Job time: 377 sec
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                                                               В
                                                                                                            Query Match
Best Local
Matches
                                                                                                                                                                                        The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 233891 to 234338, and 241685 to 241774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                        1 GGVCVQPG 8
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114 ggscvqpg 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAY-1998;
15-MAY-1998;
18-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
28-MAY-1998;
28-MAY-1998;
30-UUL-1998;
31-SEP-1998;
                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                      Claim 12; Fig 217; 530pp; English.
                                                                                                                                                                                                                                                                                                                                                                   adhesion
                                                                                                                                                                                                                                                                                                                                                                      New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular
                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-551358/46.
N-PSDB; Z34313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH )
                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WI,
                                                                                                            Similarity 87.17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                 disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard A,
                                                                                                                                                                         273 AA;
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98US-0085704.
98US-0086023.
98US-0086392.
98US-0086414.
98US-0086486.
98US-0087098.
98US-0087098.
98US-0087098.
98US-0087038.
                                                                                                                        87.2%;
87.5%;
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                                                                                                         Score 41; DB
Pred. No. 28;
0; Mismatches
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                                                                                                                                  Length 273;
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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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 protein search, using
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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4.209 Million cell updates/sec
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Gapop 10.0 ,
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                prote
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A;Gene: Rv0263c C;Superfamily: hypothetical protein HI1730

C; Genetics:

A; Experimental source:

GB:Z86089; GB:AL123456; NID:g3261711; ce: strain H37Rv

PIDN:CAB06690.1; PID:g18501

Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A; Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A; Title: Deciphering the biology of Mycobacterium tuberculosis from the comple A; Reference number: A70500; MUID:98295987
A; Recession: B70627
A; Status: preliminary; nucleic acid sequence not shown; translation not shown A; Molecule type: DNA
A; Residues: 1-300 <COL>
A; Cross-references: GB:286089; GB:AL123456; NID:g3261711; PIDN:CAB06690.1; PIIA

.; Barrell, B.G. from the complete

geno

Holroyd

Gordon

R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; H. Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
33	ω ω	ω	33	33	ω	33	ω ω	ω ω	33.5	34	34	34	34	34	34
70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	71.3	72.3	72.3	72.3	72.3	72.3	72.3
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2	Ν	N	N	N	ν	N	ب	N	N	N	N	N	N	N	2
н83196	T37975	A40465	A39900	E69873	S71025	T16805	A1HUZP	D83228	T31818	T29551	T34288	177349	A26547	A60798	в36268
glycerol kinase PA	probable alanine a	alanine transamina	alanine transamina	cell-division prot	lipopolysaccharide	hypothetical prote	Ig heavy chain V-I	hypothetical prote	hypothetical prote	hypothetical prote	hypothetical prote	platelet glycoprot	platelet glycoprot	platelet glycoprot	platelet glycoprot

ALIGNMENTS

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hypothetical protein Rv0263c - Mycobacterium tuberculosis (strain H37RV) C;Species: Mycobacterium tuberculosis C;Decies: Mycobacterium tuberculosis C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 21-Jul-2000 C;Accession: B70627
                                                                             RESULT
B70627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: E65020
R;Blattner, F.R.; Plunket
A.; Rose, D.J.; Mau, B.;
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                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:AE000332; GB:U00096; NID:g1788789; A;Experimental source: strain K-12, substrain MG1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia
A;Reference number: A64720; MUID:97426617
A;Accession: E65020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 08-Oct-1999
                                                                                                                                                                                                                                                                                                                                  A; Gene: eutJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ethanolamine utilization protein EutJ - Escherichia coli (strain K-12)
                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-278 <BLAT>
                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Status: preliminary; nucleic acid sequence not shown; translation
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Best Local
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75.0%;
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Pred. No. 9
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9.7;
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C;Genetics:
A;Map position: 22q13.1
A;Map position: 22q13.1
C;Superfamily: UDP-N-acetylglucosamine acyltransferase
C;Superfamily: UDP-N-acetylglucosamine acyltransferase
C;Keywords: glycoprotein; glycosyltransferase; hexosyltransferase;
F;6-21/Domain: transmembrane #status predicted <TMM>
F;169-180/Region: epidermal growth factor-like
F;139,239,257,395/Binding site: carbohydrate (Asn) (covalent) #stat
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                                                            ą
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: cDNA cloning, expression, and chromosomal localization of human N-acetylglucosa
A;Reference number: JN0586; MUID:93380894
A;Accession: JN0586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 398, 431.436, 1999
A;Title: A new secreted protein that binds to Wnt proteins and inhibits their activities A;Reference number: A59180; MUID:99215557
A;Accession: A59180
A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-379 <HSID: 4HSID: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R; Ihara,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
A59180
                                                                                                              Query Match
Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :Species: Homo sapiens (man)
;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change
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Matches 6; Conserv
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Best Local S
Matches 6
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112 GGVCFKPG 119
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em. 113, 692-698, 19
                                                        GGVCVQPG
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                                                                                                                 Conservative
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                                                                                                                                          80.98;
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75.08;
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85.7%;
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                                                                                                        Score 38; DB;
Pred. No. 17;
1; Mismatches
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Pred. No.
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Pred. No. 13;
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                                                                                                                                                             Length 531;
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                                                                                                                                                                                                                                                                                                                                     transmembrane
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                                                                                              Gaps
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S26929
S27007-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999 C;Accession: S26929
S270mlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G. J. Mol. Biol. 227, 776-798, 1992
                                                                                                                                                                                                                                                                                                                                                       C:Superfamily: UDP-N-acetylglucosamine acyltransferase C:Keywords: glycoprotein; glycosyltransferase; hexosylt F;6-21/Domain: transmembrane #status predicted <TMM>F;243,261,399/Binding site: carbohydrate (Asn) (covalen
                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:L39373; NID:g1008872; PIDN:AAB71422.1; PID:g1008873 A;Experimental source: liver, 129 Sv C;Comment: The action of this enzyme correlates with tissue specific functions, synthesized by mammalian cells. C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Map position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gene 164, 295-300, 19
A; Title: Cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: Mgat3
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A; Residues: 1-536 <BHA>
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C;Keywords: glycoprotein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:D10852; NID:g220821; PIDN:BAA01625.1; A;Note: sequence extracted from NCBI backbone (NCBIN:112852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Note: sequence extracted from NCBI backbone (NCBIN:1. C; Superfamily: UDP-N-acetylglucosamine acyltransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-536 <NIS>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary
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Best Local
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IC4362; MUID:96069598
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75.0%;
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75.0%;
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Pred. No. 17;
1; Mismatches
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Pred.
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NCBIP: 112855)
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A;Molecule type: DNA
A;Residues: 1-120 <HAW>
A;Residues: 1-120 <HAW>
A;Residues: 1-120 <HAW>
A;Cross-references: EMBL:Z31387; NID:g472965; PIDN:CAA83262.1; PID:g940522
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Hawkins, R.E.; Zhu, D.; Ovecka, M.; Winter, G.; Hamblin, T.J.; Stevenson, F.K. Bubmitted to the EMBL Data Library, March 1994
A;Description: Idiotypic vaccination against human B-cell lymphoma :rescue of variable A;Reference number: $44105
A;Accession: $44111
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A;Recession: $26929
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-98 <TOM>
A;Residues: 1-98 <TOM>
A;Cross-references: EMBL:Z12335; NID:g32889; PIDN:CAA78205.1; PID:g32890
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                             A;Title: A new secreted protein that binds to Wnt proteins and inhibits their activities A;Reference number: A59180; MUID:9921557
A;Accession: B59180
A;Status: preliminary; not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                            C;Species: Brachydanio rerio (zebra fis
C;Date: 18-Feb-2000 #sequence_revision
C;Accession: B59180
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                                                                                                                      A; Gene:
                                                                                                                                                            A; Cross-references:
                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-378 <HSI>
                                                                                                                                                                                                                                                                                        R;Hsleh, J.C.; Kodjabachian, L.; Rebbert, M.L.; Rattner, A.; Smallwood, P.M.; Nature 398, 431-436, 1999
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Best Local S
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Best Local S
Matches 5
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                       Similarity 62.5; Conservative
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87.5%;
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87.58;
                                         76.6%;
                                                                                                                                                                                                                                                                                                                                                                                     zebra fish
                     Score 36;
Pred. No.
2; Mismatc
                                                                                                                                                          NID: 94585375; PIDN: AAD25405.1;
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Pred. No.
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peptide synthase - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 C;Accession: T34917 Parkhill, J.; Barrell, B.;Oliver, K.; Harris, D.; Parkhill, J.; Barrell, B. submitted to the EMBL Data Library, January 1998 A;Reference number: Z21558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               glutamate dehydrogenase (EC 1.4.1.2) - Peptostreptococcus asaccharolyticus N;Alternate names: glutamic dehydroge NAD-specific glutamate dehydroge C;Species: Peptostreptococcus asaccharolyticus C;Date: 16-Oct-1992 #sequence_revision 23-Mar-1995 #text_change 11-Jun-1999 C;Accession: A38168
                                                                                                                                                                                                                                                                                                                                                                                   A; Experimental source: strain C; Genetics: A; Gene: APE2336
                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: DNA
A;Molecule type: CNA
A;Residues: 1-467 <KAW>
A;Cross-references: DDBJ:AP000064; NID:g5105945; PIDN:BAA81348.1; PID:d1045134; PID:g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     awa, H.; Takamiya, M.; Masuda, DNA Res. 6, 83-101, 1999
A;Title: Complete genome seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypothetical protein APE2336 - Aeropyrum pernix (strain K1)
C;Species: Aeropyrum pernix
C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 20-Aug-1999
C;Accession: D72461
R;Kawarabayasi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
D72461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:M76403; NID:g150669; PIDN:AAA25611.1; PID:g150670 C;Superfamily: glutamate dehydrogenase (NAD(P)+) C;Keywords: NAD; oxidoreductase F;106/Binding site: substrate (Lys) #status predicted
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A; Reference number:
A; Accession: A38168
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A; Residues: 1-421 <SNE>
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J. Bacteriol. 1;
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Best Local S
Matches 5
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Best Local Similarity
Matches 6; Conserv
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5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A72450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence of an aerobic hyper-thermophilic Crenarchaeon, Aero
50; MUID:99310339
                                                                                                                                                                                                                                                                                                          74.5%;
75.0%;
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, S.; Funahash:
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Pred. No.
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T.; Kudoh, Y
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in-no, K.; Yamazaki,

Та J.

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A:Molecule type: mRNA
A;Residues: 1-723 <CIE>
C;Superfamily: integrin beta chain; laminin-type EGF-like homology
C;Keywords: cell adhesion; duplication; heterodimer; membrane protein
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                                                                                                                                                                                                                                        R.Cieutat, A.M.; Rosa, J.P.; Letourneur, F.; Poncz, M.; Rifat, S. Blochem. Blophys. Res. Commun. 193, 771-778, 1993
A;Title: A comparative analysis of cDNA-derived sequences for rat and A;Reference number: PNO509; MUID:93290675
A;Accession: PNO509
A;Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                               integrin beta-3 chain - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Jul-1999
C;Accession: PN0509
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Best Local Similarity
Watches 6; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A:Molecule type: mRNA
A;Residues: 1-680 <CIE>
C;Superfamily: integrin beta chain; laminin-type EGF-like homology
C;Keywords: cell adhesion; duplication; heterodimer; membrane protein
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A;Title: A Comparative analysis of cDNA-derived sequences for rat and mouse beta-3 integ A;Reference number: PNO509; MUID:93290675
A;Accession: PNO510
A;Status: nucleic acid sequence not shown
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c;Species: Mus musculus (house mouse)
C;Date: 03.Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Jul-1999
c;Accession: PN0510
R;Cleutat, A.M.; Rosa, J.P.; Letourneur, F.; Poncz, M.; Rifat, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A) Subsect type: DNA
A; Molecule type: DNA
A; Residues: 1-532 <OLI>
A) Cross-references: EMBL:AL021409; PIDN:CAA16182.1; GSPDB:GN00070; SCOEDB:SC3F7.11
                                                                          Query Match
Best Local Similarity
Matches 6; Conserv
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C:Superfamily: 4-coumarate--CoA ligase; acetate--CoA ligase homology
F;51-516/Domain: acetate--CoA ligase homology <ACL>
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A;Status: preliminary; translated from GB/EMBL/DDBJ
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Best Local Similarity 85.,
6; Conservative
548 VCVQPG 553
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Pred. No. 62;
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Search completed: June 13, 2001, 14:10:45 Job time: 146 sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Ensser, A; Pflanz, R; Fleckenstein, B.
J. Virol. 71, 6517-6525, 1997
A;Title: Primary structure of the alcelaphine herpesvirus 1 genome.
A;Reference number: Z14840; MUID:97404659
A;Accession: T03156
                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-780 <ENS>
                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Status: translated from GB/EMBL/DDBJ
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Best Local :
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ses 6; Conserv
                                                                                                                                          1 GGVCVQPG 8
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75.0%;
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Pred. No. 87;
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Perfect score:
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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47
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  June 13, 2001, 14:21:45; Search time 74.44 Seconds (without alignments) 3.681 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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DH22_PEPAS
ITB3_MOUSE
GNT3_RAT
DH22_PEPAS
ITB3_MOUSE
AMPM_SALTY
STRF_STRGR
SHP1_YEAST
STRA_MYCTU
CAH_DUNSA
ITB3_HUMAN
EF2_BLAHO
HU3Q_HUMAN
EF2_BLAHO
HU3Q_HUMAN
EF2_BLAHO
ALAT_RAT
TEL2_HUMAN
TEL2_HUMAN
ALAT_RAT
TEL2_HUMAN
ALAT_RAT
ALAT_SCHPO
GLPK_NEUCR
DPO2_HUMAN
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DPO3_GFLV
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 P25409
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Q51390
P33287
Q14181
P33611
P82143
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P41794 salmonella
Q9y5w5 homo sapien
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                                7 streptomyce
3 saccharomyce
2 mycobacteri
2 dunaliella
6 homo sapien
2 blastocysti
8 homo sapien
4 haemophilus
6 rattus norv
3 homo sapien
9 bacillus su
8 homo sapien
9 rattus norv
4 schizosacch
0 pseudomonas
7 neurospora
1 homo sapien
1 mus musculu
3 agkistrodon
9 grapevine f
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7 h beta-1,4-
0 m beta-1,4-
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3 mus musculu
2 salmonella
          gallus gall
homo sapien
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Дb 8

Query Match

Best Local Similarity

Matches 6; Conserv

Conservative

80.9%;

Score 38; DB 1; Pred. No. 5.4; 1; Mismatches

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Gaps

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Length 278; Indels

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SWISS-PROT entry is copyright. It is pen the Swiss Institute of Bioinformaturopean Bioinformatics Institute. The uropean Bioinformatics Institutions as long per per pen in the statement is not removed its requires a license agreement (See and an email to licenseelisb-slb.ch). AE000332; AAC75507.1; D90874; BBA16332.1; D90874; BBA16332.1; D90874; BBA16332.1; D90874; BBA16332.1;	DENCE FROM N.A. AIN-K12; a H., Baba T., Fujita K., Hayashi K., Ho a H., Baba T., Fujita K., Isono S., J moto K., Inada T., Isono K., Isono S., J himoto K., Kim S., Kimura S., Kitagawa h himoto H., Nishio Y., Oshima T., Saito h himoto H., Nishio Y., Oshima T., Saito h ami H., Takemoto K., Wada C., Yamamoto J mitted (Jan-1997) to the EMBL/GenBank/DI pathway: ETHANOLAMINE UTILIZATION.	riphia, TaxID=562; ENCE FROM N.A. IN=K12 / MG1655; INE=97426617; PubMed=9278503; INE=97426617; PubMed=9278503; INE=97426618; P	ECOLI STANDARD; PR 7; 7-1997 (Rel. 35, Created) V-1997 (Rel. 35, Last seque T-2000 (Rel. 40, Last annot OLAMINE UTILIZATION PROTEIN FIA: Description forms	32 68.1 441 1 NFIX_MOUSE 32 68.1 509 1 NFIL_RAT 32 68.1 522 1 NFIA_CHICK 32 68.1 522 1 NFIA_CHICK 32 68.1 523 1 ERG1_RAT 32 68.1 687 1 GALX_KLULA 32 68.1 1183 1 DRPL_HUMAN 32 68.1 1183 1 DRPL_HUMAN 32 68.1 2185 1 DRPL_HUMAN 32 68.1 2318 1 PER_DROTE 31 66.0 88 1 PER_DROTE 31 66.0 91 1 Y4BH_HISN 31 66.0 114 1 PER_DROOR 31 66.0 130 1 KR3A_SHEEP 31 66.0 130 1 KR3A_SHEEP
ced through a collaborati and the EMBL outstations on i ts content is in no w age by and for commerci ://www.isb-sib.ch/announc	Honjo A., Horiuchi T., Itoh T., Kanai K., Kasai H., M., Kitakawa M., Makino K., , Motomura K., Nakamura Y., N., Sampei G., Seki Y., Y., Yano M.; DDBJ databases.	CON; ENCERODACCERTACEAE; (., Perna N.T., Burland V., Rode C.K., Mayhew G.F., Goeden M.A., Rose D.J., thia coli K-12.";	ت	P70257 mus musculu P09414 rattus norv P17923 gallus gall P52020 rattus norv P09609 kluyveromyc P54256 rattus norv P54259 homo sapien Q61982 mus musculu Q26287 drosophila P55375 rhizobium s Q26289 drosophila P02443 ovis aries

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HOmo sapiens (Human).
Homo sapiens (Human).
horia; Metazoa; Chordata;
horia; Primates;
SEQUENCE FROM N.A. MEDLINE=99215557;
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EMBL; AF093749; AAC78119.1
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Kofold E.C., Rappleye C.A., Stojiljkovic I., Roth J.R.;
"The 17-gene ethanolamine (eut) operon of Salmonella typhimurium encodes five homologues of carboxysome shell proteins.";
J. Bacteriol. 181:5317-5329(1999).
-- PATHWAY: ETHANOLAMINE UTILIZATION.
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MEDLINE-95173114; PubMed-7868611;

Stoj11]kovic I., Bacumler A.J., Heffron F.;

Ethanolamine utilization in Salmonella typhimurium: nucleotide sequence, protein expression, and mutational analysis of the ccha cchB eutE eutJ eutG eutH gene cluster.";

J. Bacteriol. 177:1357-1366(1995).
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30-MAY-2000 (Rel. 39, Last annotation update)
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Nature 398:431-436(1999).
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BE INVOLVED IN MESODERM SEGMENTATION.
SUBCELLULAR LOCATION: SECRETED.
SIMILARITY: CONTAINS 5 EGF-LIKE DOMAINS.
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SIGNAL
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Smallwood P.M., Samos C.H., Nusse I
"A new secreted protein that binds
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InterPro; IPR000561; -.
InterPro; IPR002049; -.
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-1- SIMILARITY: CONTAINS 5 EGF-LIKE DOMAINS.
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I.B., Nathans
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                                                                                                                        Length 379
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GNT3_HUMAN
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Q09327;
01-NOV-1995 (Rel. 3
01-NOV-1995 (Rel. 3
01-CCT-1996 (Rel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                           Transferase; Glycoprotein;
                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
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SEQUENCE
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DOMAIN
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CARBOHYD
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J. Biochem. 113:692-698(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE III) (GNT-III) (GLCNAC-T III).
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01-OCT-1996 (Rel. 34, Last annotation update)
BETA-1,4-MANNOSYL-GLYCOPROTEIN BETA-1,4-N-ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-GLYCOSYL-OLIGOSACCHARIDE-GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; D13789; BAA02937.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=93380894; PubMed=8370666;
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SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. GOLGI.
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GGVCFKPG
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604621;
                                                   GGVCVQPG
                                                                                                   Similarity 6; Conser
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                                                                                                Score 38; DB Pred. No. 9.5; 1; Mismatches
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LUMENAL, CATALYTIC (POTENTIAL).

PRO-RICH.

PRO-RICH.

O-LINKED (GLCNAC. .) (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).
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                                                                                                                                                    Length 531;
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GNT3_MOUSE
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CARBOHYD
CARBOHYD
VARIANT
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DOMAIN
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DOMAIN
                                                                                                                                                                                                                                       Transferase; Glycosyltransferase;
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MGD; MGI:104532; Mgat3.
                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Priatel J.J., Sarkar M., Schachter H., Marth J.D.;
"Isolation, characterization and inactivation of the mouse Mgat3 gene:
the bisecting N-acetylglucosamine in asparagine-linked
oligosaccharides appears dispensable for viability and reproduction.";
Glycobiology 7:45-56(1997).

THE REGULATION OF THE BIOSYNTHESIS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE row ..... STRAIN-129/SV; TISSUE-Liver; MEDLINE-96069598; PubMed-7590346; MEDLINE-96069598; PubMed-7590346; Bhaumik M., Seldin M.F., Stanley P.; "Cloning and chromosomal mapping of the mouse "Cloning and chromosomal mapping of the mouse
                                                                                                                                                                                                                                                                                                              EMBL; L39373;
                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between
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Q10470; P703
01-OCT-1996
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STRAIN-129/SVJ; TISSUE-Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Ročentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
BETA-1, 4-MANNOSYL-GLYCOPROTEIN BETA-1, 4-N-ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-GLYCOSYL-OLIGOSACCHARIDE-GLYCOPROTEIN
N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE
III) (GNT-III) (GLCNAC-T III).
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[1]
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SUBGELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. GOLGI.
TISSUE SPECIFICITY: HIGHLY EXPRESSED IN BRAIN AND KIDNEY AND
MUCH LESSER EXTENT ::N STOMACH, HEART, INTESTINE, UTERUS, TEST
OVARY AND LUNG. NOT PRESENT IN SPLEEN, LIVER AND MUSCLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIOLOGICAL FUNCTION OF GLYCOPROTEIN OLIGOSACCHARLDES. CATALYZES
THE ADDITION OF N-A-ETYLGLUCOSAMINE IN BETA 1-4 LINKAGE TO THE
BETA-LINKED MANNOSE OF THE TRIMANNOSYL CORE OF N-LINKED SUGAR
CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE
REGULATION OF THE BIOSYNTHESIS OF GLYCOPROTEIN OLIGOSACCHARIDES.
CATALYTIC ACTIVITY: UDP-N-ACETYL-D-GLUCOSAMINE + N-ACETYL-BETA-D-
GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 3-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 6)-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-MANNOSYL-1, 6-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-MANNOSYL-1, 6-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 6-N-ACETYL-BETA-D-GLUCOS
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AAC53064.1; ALT_INIT.
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N-LINKED (GLCNAC...
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I-> V (IN 129/SVJ).
D -> G (IN 129/SVJ).
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                                                                                                                                                                                           CYTOPLASMIC
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                                                                                                                                    (POTENTIAL).
DR (TYPE-II MEMBRANE PROTEIN).
FALYTIC (POTENTIAL).
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Murinae; Mus
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RT beta-1, 4N-acetylglucosaminyltransferase III from rat kidney.";

RI J. Biol. Chem. 267:18199-18204(1992).

C -!- FUNCTION: IT IS INVOLVED IN THE REGULATION OF THE BIOSYNTHESIS AND BIOLOGICAL FUNCTION OF GLYCOPROTEIN OLIGOSACCHARIDES. CATALYZES

C HEADDITION OF N-ACETYLGLUCOSAMINE IN BETA 1-4 LINKAGE TO THE GHANN. IT IS ONE OF THE TRIMANOSYL CORE OF N-LINKED SUGAR.

C CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE CHANN. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE CHANN. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE CHANN. IT IS ONE OF THE MOST INFORMANCE TO FALCHARIDES.

C CATALYTIC ACTIVITY: UDP-N-ACETYL-D-GLUCOSAMINE + N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 3-(N-ACETYL-BETA-D-HANNOSYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 5)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 4-N-ACETY
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Matches 6
                                                                                                                                          between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There use by non-profit institutions as long as modified and this statement is not removed. Use entitles requires a license agreement (See htt or send an email to license@isb-slb.ch).
                                                                                                    EMBL;
PIR; /
        DOMAIN
                                            Glycoprotein;
DOMAIN
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                          TRANSMEM
                                                                            Transferase; Glycosyltransferase;
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Q02527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nishikawa A., Ihara Y., Hatakeyama M., Kanga "Purification, cDNA cloning, and expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-OT-1996 (Rel. 34, Last sequence update)
01-OT-1996 (Rel. 34, Last annotation update)
BETA-1,4-MANNOSYL-GLYCOPROTEIN BETA-1,4-N-ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-GLYCOSYL-OLIGOSACCHARIDE-GLYCOPROTEIN
N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               UDP-N-acetylglucosamine: beta-D-mannoside
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=92388193; PubMed=1325461;
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MGAT3 OR GNT3.
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                    CYTOPLASMIC (POTENTIAL). SIGNAL-ANCHOR (TYPE-II N
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ession of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Snedecor B., Chu H., Chen E.Y.;

Snedecor B., Chu H., Chen E.Y.;

"Selection, expression, and nucleotide sequencing of the glutamate dehydrogenase gene of Peptostreptococcus asaccharolyticus.";

J. Bacteriol. 173:6162-6167(1991).

-I- CATALYTIC ACTIVITY: L-GLUTAMATE + H(2)0 + NAD(+) = 2-OXOGLUTARI + NH(3) + NADH.

-I- PATHWAY: FIRST STEP IN THE HYDROXYGLUTARATE PATHWAY (ROUTE FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
01-OCT-1996 (Rel. 34, Last annotation update)
NAD-SPECIFIC GLUTAMATE DEHYDROGENASE (EC 1.4.1.2) (NAD-GDH).
Peptostreptococcus asaccharolyticus (Peptococcus asaccharolyticus).
Bacteria; Firmicutes; Bacillus/Clostridium group; Clostridiaceae;
                                                                                                                                                                                                                                                                                                        Oxidoreductase; NAD. ACT_SITE 106 1
                                                                                                                                                                                                                                                                                                                                           Pfam; PF00208; GLFV_dehydrog; PRINTS; PR00082; GLFDHDRGNASE PROSITE; PS00074; GLFV_DEHYDRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE-92011378; Pubmed-1917850;
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P28997;
                                                                                                                                                                                                                                                                                  SEQUENCE
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NCBI_TaxID=1258;
                                                                                              107
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A38168; A38168.
; P80319; IGTM.
                                                                                          GGICVDP
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Similarity 75.0%;
6; Conservative
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1; Mismatches
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N-LINKED (GLCNAC. . .) (PO'
N-B1817BEB6C307438 CRC64;
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Pred. No.
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      PICTOR SERVICE SERVICE
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054890;
15-DEC-1998
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3) (CD61).
ITGB3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCHUGH K.P., Teitelbaum S.L., Kitazawa S., Ross F.P.;
Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: PLATELET MEMBRANE GLYCOPORDEIN IIB-IIIA IS
RECEPTOR FOR ADHESIVE PROTEINS. IT BINDS FIBRINGEN,
VITRONECTIN AND VWF. INTEGRINS RECOGNIZE THE SEQUENCE
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REPEAT
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PROSITE; PS0022; EGF_1; UNKNOWN_2.
PROSITE; PS01186; EGF_2; UNKNOWN_1.
Integrin; Cell adhesion; Transmembrane;
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InterPro; IPR001169;
InterPro; IPR002369;
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Mammalia; Eutheria;
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SIMILARITY:
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SUBUNIT: DIMER OF AN ALPHA AND BETA S
ASSOCIATED WITH ALPHA-IIB (GPIIB) OR
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GLYCOPROTEIN IIIA PRECURSOR
    Chordata;
Rodentia;
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01-NOV-1991
30-MAY-2000
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Salmoron
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N.R., Semon D., Neyer C., Kawashima
T.J.L., Miller C.G.;
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Pfam; PF00557; Peptidase_M24; 1
PRINTS; PR00599; MAPEPTIDASE.
PROSITE; PS00680; MAP_1; 1
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                                                                                                                                                                                                            STRP.
Streptomyces griseus.
Streptomyces griseus.
Bacteria; Firmicutes; Actinobacter
Actinomycetales; Streptomycineae;
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909397;

01-MAR-1989

01-AUG-1992

01-NOV-1997
                                                                                                                                     Mansouri K., Piepersberg W.;
"Genetics of streptomycin production in Streptomyces granucleotide sequence of five genes, strFGHIK, including
                                                                                                                                  nucleotide gene.";
                                                                                                                                                                       STRAIN=N2-3-11;
MEDLINE=91375432;
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PIR; S12027; S:
HSSP; P07906;
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EMBL; 235819; CAA84878.1; -
PIR; S39830; S39830.
PIR; S37331; S37331.
SGD; S0000154; SHP1.
InterPro; IPR001012; -
Pfam; PF00789; UBX; 1.
SEQUENCE 423 AA; 46987 M
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01-NOV-1995
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Zhang S., Guha S., Volkert F.C.;
"The Saccharomyces SHP1 gene, which encodes a regulator of phosphoprotein phosphatase 1 with differential effects on glycogen metabolism, meiotic differentiation, and mitotic ceil cycle progression.";
                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-94205266; PubMed-8154187; Scherens B., el Bakkoury M., Vierendeels F., Dubois E., Messenguy F.; "Sequencing and functional analysis of a 32,560 bp segment on the left arm of yeast chromosome II. Identification of 26 open reading frames, including the KIP1 and SEC17 genes."; Yeast 9:1355-1371(1993).
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                                                                                                                                                                                                                                                                                                       MOL. Cell. Biol. 15:2037-2050(1995).
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NCBI_TaxID=4932;
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Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
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RESULT 13
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                         MEDLINE-87165991;
Fitzgerald L.A.,
                                                                                                  Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; F
MCBI_TaxID=9606;
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SEQUENCE FROM N.A.
MEDLINE-96279304; PubMed-8663366;
MEDLINE-96279304; PubMed-8663366; PubMed-866366; PubMed-866366; PubMed-866766; PubMed-866766; PubMed-866766; PubMed-866766; PubMed-866766; PubMed-8
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01-OCT-1996 (Rel. 34
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Biol. Chem. 271:17718-17723(1996).

FUNCTION: REVERSIBLE HYDRATATION OF CACATALYTIC ACTIVITY: H(2)CO(3) - CO(2)

INDUCTION: BY SALT.
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Newman P.J., Derbes R.S., Aster R.H.;
"The human platelet alloantigens, Pla1 and pla
a leucine33/prolinne33 amino acid polymorphism
glycoprotein IIIa, and are distinguishable by
J. Clin. Invest. 83:1778-1781(1989).
                                                                                                                                                          Calvete J.J., Henschen A., Gonzalez-Rodriguez J.; "Assignment of disulphide bonds in human platelet GPIIIa. disulphide pattern for the beta-subunits of the integrin Biochem. J. 274:63-71(1991)
VARIANT HPA-4
                                                                                                               VARIANT HPA-1 (PL(A)).
MEDLINE=89214713; PubMed=2565345;
                                                                                                                                                                                                                                     PARTIAL SEQUENCE, AND DISULFIDE EMEDLINE=91158732; Pubmed=2001252;
                                                                                                                                                                                                                                                                                        Hiralwa A., Matsukage A., Shiku H., 1
"Purification and partial amino acid
membrane glycoproteins IIb and IIIa."
Blood 69:560-564(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WEDLINE=94129007; PubMed=8298129;
Villa-Garcia M., Li L., Riely G., Bra
"Isolation and characterization of a
beta 3 integrin gene.";
Blood 83:668-676(1994).
                                                                                                                                                         [10]
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                                                                                                                                                                                                                                                                                                                                                                                                           subunit of the leukocyte integrins Int. Immunol. 4:1031-1040(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 122-204 FROM N.A. MEDLINE=93002753; PubMed=1382574;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zimrin A.B., Gidwitz S., Lord S., Schw
Mhite G.C. II, Poncz M.;
"The genomic organization of platelet
J. Biol. Chem. 265:8590-8595(1990).
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MEDLINE=91009291; PubMed=2142380;

Lanza F., Kieffer N., Phillips D.R., Fitzgerald L.A.;

"Characterization of the human platelet glycoprotein IIIa gene.

Comparison with the fibronectin receptor beta-subunit gene.";

J. Biol. Chem. 265:18098-18103(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     different membrane receptors.";
J. Clin. Invest. 81:1470-1475(1988).
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Marguerie G.;
"GPIIb and GPIIIa
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f a TATA-less
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ld sequence
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                                      and PlA2, are associated orphism in membrane table by DNA typing.";
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Bajt M.L.,
Loftus J.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                molecular weight polymorphism of a functional plaubunit. The Sra alloantigen system of GPIIIa."; J. Biol. Chem. 269:8439-8444(1994).
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MEDLINE-94179229; PubMed-81329

MEDLINE-94179229; PubMed-81329

Santoso S., Kalb R., Kroll H.,

Mueller-Eckhardt C., Newman P.

"A point mutation leads to an
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kuijpers R.W.A.M., Simsek S., Faber N.M., Goldschmeding van Wermerkerken R.K.V., von Dem Borné A.E.G.K.; "Single point mutation in human glycoprotein IIIa is asse a new platelet-specific alloantigen (Mo) involved in nec
"Inherited diseases of platelet glycoproteins: considerations rapid molecular characterization.";
Thromb. Haemost. 72:492-502(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "A new variant of Glanzmann's thrombasthenia (Strasbourg Platelets with functionally defective glycoprotein IIb-II and a glycoprotein IIIa 214Arg->214Trp mutation.";
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Lanza F., Stierle
Cazenave J.-P.;
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J. Biol. Chem.
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Bajt M.L., Ginsberg M.H., Frelinger
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Glnsberg M.H.;
"A beta 3 integrin mutation
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MEDLINE-90364410; PubMed-2392682;
Loftus J.C., O'Toole T.E., Plow E.
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J. Clin. Invest. 90:2038-2043(1992).
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                                                                                                                                 REVIEW ON GTA VARIANTS.
MEDLINE-95184171; PubMed-7878622;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         spontaneous mutation of integrin ycoprotein IIb-IIIa) helps define Biol. Chem. 267:3789-3794(1992).
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R., Kroll H., Walka
C., Newman P.J.;
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A., Fournier D.,
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K., McFarland C
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Biochem. Biophys. Res. Commun. 251:763-768(1998).
-!- FUNCTION: PLATELET MEMBRANE GLYCOPROTEIN IIB-IIIA IS RECEPTOR FOR ADHESIVE PROTEINS. IT BINDS FIBRINGEN, VITRONECTIN AND VWF. INTEGRINS RECOGNIZE THE SEQUENCY
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VARIANTS
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Murata M., Takada Y., Watanabe K., Ikeda Y.;
"Three novel integrin beta3 subunit missense mutations
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BOLYMORPHISM:

BOSITION 59 IS ASSOCIATED WITH PLATELET-SPECIFIC ALLOANTIGEN HPA-1 (2W OR PL(A)). HPA-1A/PL(A1) HAS LEU-59 AND HPA-1B/PL(A2) HAS PRO-59.

BOLYMORPHISM:

BOSITION 169 IS ASSOCIATED WITH PLATELET-SPECIFIC ALLOANTIGEN HPA-4 (PEN OR YUK). HPA-4A/PEN(A)/YUK(A) HAS ARG-169.

ALLOANTIGEN HPA-4 (PEN OR YUK). HPA-4B IS INVOLVED IN NEONATAL ALLOIMMUNE THROMBOCYTOPENIA (NATP).

POLYMORPHISM:

BOSITION 433 IS ASSOCIATED WITH PLATELET-SPECIFIC ALLOANTIGEN MO. MO(-) HAS PRO-433 AND MO(+) HAS ALA-433. MO(+) I INVOLVED IN NATP.
                                                                                                                                                                                                        POLYMORPHISM: POSITION 515 IS ASSOCIATED WITH PLATELET-SPEC ALLOANTIGEN CA (TU). CA(-)/TU(-) HAS ARG-515 AND CA(1)/TU(+ GLN-515. CA(+) IS INVOLVED IN ATP. DISEASE. DEFECTS IN ITGB3 ARE ONE OF THE CAUSE OF GLANZMANN THROMBASTHENIA (GTA), AN AUTOSOMAL RECESSIVE DISORDER WHICH THE MOST COMMON INHERITED DISEASE OF PLATELETS. GTA IS
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ALTERNATIVE PRODUCTS: THE DIFFERENT FORMS OF A
ARISE BY ALTERNATIVE SPLICING OF PRIMARY MRNA TRANSCRIPTS.
PTM: THE CYSTEINE RESIDUES ARE INVOLVED IN INTRACHAIN DISULFIDE
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2: sp_bacteria
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Copyright (c) 1993 - 2000 Compugen Ltd.
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sp_vertebrate:*
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P95220 mycobacteri
O9w6f8 xenopus lae
O9y5w5 homo sapien
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075412 homo sapien
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Q10923 caenorhabdi	Q9nke2 drosophila	Q25494 manduca sex		Q54257 streptomyce	Q9veh2 drosophila	O33515 rhodobacter		Q9pk45 chlamydia m	084353 chlamydia t	O26242 methanobact	۵		O36411 alcelaphine		Q9qw15 mus sp. bet	O54154 streptomyce		homo sapie		_	Q25491 manduca sex	Q25526 manduca sex	075543 homo sapien		Q9xhv8 oryza sativ

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INTERPRO; IPRO00561; -.
INTERPRO; IPRO00561; -.
PIAM; PP00008; EGF; 2.
PPOSITE; PS00010; ASX_HYDROXYL; 1.
PROSITE; PS00022; EGF_1; UKKNOWN_1.
PROSITE; PS01186; EGF_2; UKKNOWN_1.
PROSITE; PS01187; EGF_CA; 1.
SEQUENCE 273 AA; 29617 MW; 5740BB845ED5A988 CRC64;
                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
Sheppard P., Jelinek L., Whitmore T., Blumberg H., Lehner O'Hara P.;
O'Hara P.;
Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF186111; AAF01429.1; -.
HSSP; P35555; 1EMN.
                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                   ZNEU1.
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01-MAY-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
NOTCH4-LIKE PROTEIN.
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                                               114 GGSCVQPG 121
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PROSITE; PSO0022; EGF_1; UNKNOWN_1.

PROSITE; PSO0025; CRYSTALLIN_BETAGAMA; UNK
PROSITE; PSO0225; CRYSTALLIN_BETAGAMA; UNK
PROSITE; PSO0280; BPT_KUNITZ; UNKNOWN_1.

PROSITE; PSO0340; RECEPTOR_CYTOKINES_2; UNK
PROSITE; PSO1209; LDLRA_1; 9.

PROSITE; PSO1209; LDLRA_1; 20.
               01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation updathypotherical 32, XDA PROTEIN.
RV0263C OR MTCY06A4.07C
                                                                     P95220
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INTERPRO; IPRO02223;
INTERPRO; IPRO02465;
INTERPRO; IPRO02919;
PFAM; PF00057; 1d1_re
                                                      01-MAY-1997
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075851;
01-NOV-1998
01-NOV-1998
01-OCT-2000
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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Submitted (SEP-1998)
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Leonard S., Graves T.,
"The sequence of Homo
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PF00094; vwd; 5.

PF00754; F5_F8_type_C; 1.

PF01826; TIL; 9.
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mutheria; Primates; C
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris D. A. Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Radcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S., A. Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., A. Rutter S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston J.E. Taylor K., Whitehead S., Barrell B.G.; Squares R., Sulston J.E. Tochhering the biology of Mycobacterium tuberculosis from the complete genome sequence.";

Nature 393:537-544(1998).

REMBL; Z86089; CA8066590.1; -.
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Best Local
PRINTS; PRO0011; EGFLAMININ.

PROSITE; PS00022; EGF 1; UNKNOWN_5.

PROSITE; PS01186; EGF_2; S.

Repeat; EGF-11ke domain; Signal; Developmental SIGNAL 1 28 POTENTIAL.
                                                                                                                                                                                                                                                                 [1]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=99215557; PubMed=10201374;
Hsieh J.-C., Kodjabachian L., Rebbert M.L., Rattner A.,
Smallwood P.M., Samos C.H., Nusse R., Dawid I.B., Natha
"a new secreted protein that binds to Wnt proteins and
"a new secreted protein that binds to Wnt proteins."
                                                                                   INTERPRO; IPR000561; --
INTERPRO; IPR002049; --
PFAM; PF00008; EGF; 5.
                                                                                                                                    -!- DEVELOPMENTAL STAGE:
-!- SIMILARITY: CONTAINS
EMBL; AF122924; AAD25404.
HSSP; P00740; 1EDM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9W6F8
Q9W6F8;
Q9W6F8;
Q1-NOV-1999 (TrEMBLrel 12, Created)
Q1-NOV-1999 (TrEMBLrel 12, Last sequence update)
Q1-NOV-1999 (TrEMBLrel 15, Last annotation update)
WNT INHIBITORY FACTOR 1 PRECURSOR (WNT INHIBITORY FACTOR 1)
WIF1 OR WIF-1 African clawed frog).
                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hypothetical protein.
SEQUENCE .300 AA; 32203 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TUBERCULIST; Rv0263c; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120 GGVCVEP 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Corynebacterineae; Mycobacteriaceae; MCBI_TaxID=1773;
                                                                                                                                                                                            BUNCTION: BINDS TO WAT PROTEINS AND INHIBITS BE INVOLVED IN MESODERM SECKENTATION.
TISSUE SPECIFICITY: DURING SOMATOGENESIS, ED IN UNSEGMENTED PARAXIAL PRESOMITIC MESODERM EXTENT, IN NEWLY SEGMENTED SOMITES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGVCVQP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6;
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                                                                                                                                               SEGMENTED SOMITES.

AGE: FIRST EXPRESSED AT

AINS 5 EGF-LIKE DOMAINS.

5404.1; -.
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85.7%;
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                                                                                                                                                                                                                                                          AND INHIBITS
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inhibits
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Best Local S
Matches 6
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Q9Y5W5;
Q1-NOV-1999
01-NOV-1999
01-OCT-2000
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     DOMAIN
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DOMAIN
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PROSITE; PS00022; EGF_1; UNKNOWN_5

PROSITE: PS01186; EGF_2; 4.
                                                                                                                                                                                                           BE INVOLVED IN MESODERM SEGMENTA
-I - SIMILARITY: CONTAINS 5 EGF-LIKE
EMBL; AF122922; AAD25402.1; -
HSSP; P00743; 1CCF
INTERPRO; IPR002561; -
INTERPRO; IPR002049; -
                                                                                                                                                                                                                                                                                                                             Hsieh J.-C., Kodjabachian L., Rebbert Smallwood P.M., Samos C.H., Nusse R., "A new secreted protein that binds to activities.", Nature 398.431-436(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last seq)
01-NOT-2000 (TrEMBLrel. 15, Last ann
WNT INHIBITORY FACTOR 1 PRECURSOR (WI
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=99215557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
                                                                                                                                                                                              PFAM; PF00008; EGF; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WIF1 OR WIF-1.
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Signal;
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EGF-LIKE 1.
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EGF-LIKE 1.
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EGF-LIKE 2.
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   POTENTIAL.
WNT INHIBI
EGF-LIKE 1
EGF-LIKE 2
EGF-LIKE 3
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EGF-LIKE 5
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E26F973B0F00ACF8 CRC64;
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annotation update)
R (WNT INHIBITORY FACTOR-1) (WIF-1).
                                                                                          INHIBITORY
                                                                                                                        Developmental protein.
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                                                                                          FACTOR
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       RESULT
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Best Local S
Matches
                                                                                                                                                                                                                                                                                            BRAIN AND EYE.
-I- SIMILARITY: CONTAINS 5
EMBL; AF122923; AAD25403.1
HSSP; P00740; 11XA.
MGD; MGI:1344332; Wif1-pen
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O9WUA1:
O1-NOV-1999 (TrEMBLrel. 1
O1-NOV-1999 (TrEMBLrel. 1
O1-NOV-1999 (TrEMBLrel. 1
O1-OCT-2000 (TrEMBLrel. 1
O1-OCT-2000 (TrEMBLrel. 1)
WNT INHIBITORY FACTOR 1
WIF1 OR WIF-1.
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MEDLINE-99215557; PubMed-10201374;

Hsieh J.-C., Kodjabachlan L., Rebbert M.L., Rattner A.,

Smallwood P.M., Samos C.H., Nusse R., Dawid I.B., Nathans J.;

"A new secreted protein that binds to Wnt proteins and inhibits their

activities.",

Nature 398:431-436(1999).

-i- FUNCTION: BINDS TO WNT PROTEINS AND INHIBITS THEIR ACTIVITIES. MAY
                                                                                                                                                                                         PRINTS; PRO0011; EGFLAMININ PROSITE; PS00022; EGF_1; UNI PROSITE; PS01186; EGF_2; 4.
                                                                                                                                                                                                                                                                                                                                                                                <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammaalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                PFAM; PF00008; EGF;
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                                                                                                                                                                                                                                                                                                                                                                               BE INVOLVED IN MESODERM SEGMENTATION.
TISSUE SPECIFICITY: EXPRESSION HIGHES
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   e domain;
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12, Last sequence update)
15, Last annotation update)
PRECURSOR (WNT INHIBITORY E)
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                                                                                                                                                                       UNKNOWN_5.
4.
Signal; De
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                                                                                                                                                                                                                                                                                                                                               EGF-LIKE DOMAINS
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POTENTIAL.

WAT INHIBITORY FACTOR 1.

EGF-LIKE 1.

EGF-LIKE 2.

EGF-LIKE 3.

EGF-LIKE 4.

EGF-LIKE 4.

EGF-LIKE 5.

POTENTIAL.

POTENTIAL.

POTENTIAL.
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                                                                                                                                                                         Developmental protein
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No. 19;
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Best Local S
Matches 6
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Best Local S
Matches 6
                                                                           Ultura.
LATEM TRANSFORM.
HOMO Sapiens (Human).
""Farvota; Metazoa; Chordata; Cransformates; Cran
                                                                                                                                                                                                         O75413 PRELIMINARY. PRT; 179 AA. O75413; O1-NOV-1998 (TrEMBLrel. 08, Created) O1-NOV-1998 (TrEMBLrel. 08, Last sequence update) O1-NOV-1998 (TrEMBLrel. 13, Last annotation update) O1-MAY-2000 (TrEMBLrel. 13, Last annotation update) LATENT TRANSFORMING GROWTH FACTOR-BETA BINDING PROTI
            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE: PS00022; EGF_1; UNKNOWN_1.
PROSITE: PS01186; EGF_2; 1.
Transferase; Glycosyltransferase.
SEQUENCE 531 AA; 61053 MW; 3CF56C518F6248B0
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Q9UH32;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DJ1104E15.1 (MANNOSYL (BETA-1,4)-GLYCOPROTEIN
BETA-1,4-N-ACETYLGLUCOSAMINYLTRANSFERASE).
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Mammalia; Eutheria; Primates;
NCBI_TaxID=9606;
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L Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases. RMLL; U89336; AAB47494.1; -.
R HSSP; P35555; LEMN.
R HSSP; P35555; LEMN.
R HSSP; P35555; LEMN.
R HTERPRO; IPRO00152; -.
INTERPRO; IPRO001881; -.
INTERPRO; IPRO01881; -.
INTERPRO; IPRO01881; -.
PFAM; PF00008; EGF-2; 1.
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PROSITE; PS001186; EGF-2; 1.
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PROSITE; PS011187; EGF-2; 1.
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SEQUENCE 293 AA; 32262 MW; 6519CA254FB23FD0 CRC64;
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01-MAY-1997 (TrEMBLrel. 03, Last
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MEDLINE-98325059; PubMed-9660815;

Saharinen J., Taipale J., Monni O., Keski-Oja J.;

Saharinen J., Taipale J., Monni O., Keski-Oja J.;

"Identification and characterization of a new latent growth factor-beta-binding protein, LTBP-4.";

J. Biol. Chem. 273:18459-18469(1998).

EMBL; AF051345; AAC39880.1; -.

PFAM; PF00008; EGF; 1.

PFAM; PF00008; EGF; 1.
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                                                                                                                                                                                                                                                                                    Paul S.P., Graves D.C.;

"Phylogeny and sequence analysis of Pneumocystis carinii HSP70.";

"L Submitted (SEP-1995) to the EMBL/GenBank/DDBJ databases.

"R EMBL; U71151, AAN09565.1; -.

"R HSSP; P19120; 3HSC.

"INTERPRO; IPR0010159; -.

"R INTERPRO; IPR001023; -.

"R PFAM; PF00011; HSP70; 1.

"R PFAM; PF00011; HSP70; 1.

"R PROSITE; PS00301; HEATSHOCK70.

"R PROSITE; PS00329; HSP70_2; 1.

"R PROSITE; PS00329; HSP70_2; 1.

"R PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.

"R PROSITE; PS01036; HSP70_3; 1.
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"Identification, characterization, and expression endoplasmic reticulum resident chaperonins in Pneu Infect. Immun. 64:4463-4471(1996).
EMBL; U80967; AAD00455.1; ...
INTERPRO; IPRO00169; ...
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01-MAY-1999 (TERMBLrel. 15, Last sequence update)
01-CCT-2000 (TERMBLrel. 15, Last annotation update)
HEAT SHOCK PROTEIN 70 (FRAGMENT).
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PRINTS; PR00301; HEATSHOCK70.

PROSITE; PS00297; HSP70_1; UNKNOWN_1.

PROSITE; PS00329; HSP70_2; 1.

PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.

PROSITE; PS01036; HSP70_3; 1.
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Eukaryota; Fungi; Fungi incertae sedis; Pneumocystidaceae;
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NCBI_TaxID-38081;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=97045128; PubMed=8890193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=4754;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pneumocystis carinii.
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         GGVCVQPG 8
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645 AA;
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70884 MW;
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71176 MW;
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                                                             Score 37; DB Pred. No. 48; O; Mismatches
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Pred. No.
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Best Local S
Matches 6
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Nature 397:617-621(1999).
EMBL; AF116865; AAD31172.1; -.
INTERPRO; IPR000561; -.
PROSITE; PS00022; EGF_1; UNKNOWN
PROSITE; PS01186; EGF_2; 2.
SEQUENCE 700 AA; 78485 MW; D
                           PFAM; PF00057; Idl_recept_a; 7
PFAM; PF00090; tsp_1; 1.
PFAM; PF00094; vwd; 1.
PFAM; PF01826; TIL; 2.
PFAM; PF01826; TIL; 2.
PROSITE: PS00340; RECEPTOR. CYTP
PROSITE: PS01209; LDLRA_1; 4.
                                                                                                                                                                                                                                   INTERPRO; IPRO00884; -.
INTERPRO; IPRO01846; -.
INTERPRO; IPR002172; -.
INTERPRO; IPR002465; -.
INTERPRO; IPR002919; -.
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Q9WU59;
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Bos taurus (Bovine).

Bos taurus (Bovine).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;

Bovidae; Bovinae; Bos.

NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-1997 (TrEMBLrel.
01-JAN-1999 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                Gobron S.;
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases
EMBL; Y08560; CAA69867.1; -.
HSSP; P01130; IAJJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-SUBCOMMISSURAL ORGAN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         002660;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01.NOV-1999 (TrEMBLrel. 12, Created)
01.NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-NAY-2000 (TrEMBLrel. 13, Last annotation update)
HEDGEHOG-INTERACTING PROTEIN.
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"Vertebrate Hedgehog signalling modulated by induction of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE-99158142;
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6; Conserv
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RECEPTOR_CYTOKINES_2; UNKNOWN_2.
LDLRA_1; 4.
LDLRA_2; 6.
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EGF_2; 2.
; 78485 MW; DC19B3929AFC6354 CRC64;
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85.7%;
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15,
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Last sequence update)
Last annotation update)
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Sciurognathi; Muridae;
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52;
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Gaps

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700;

Euteleostomi;
; Murinae; Mus

Hedgehog-

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Query Match
Best Local Similarity
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Best Local Similarity 75.0
Matches 6; Conservative
                                                                      000508;
Homo sapiens (Human)
Eukaryota; Metazoa; Cho:data;
Mammalla; Eutheria; Prinates;
NCBI_TaxID-9606;
[1]
                                   01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
LATENT TGF-BETA BINDING PROTEIN-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein.
NON_TER 87
SEQUENCE 870
                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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075412;
                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
LATENT TRANSFORMING GROWTH FACTOR-BETA BINDING PROTEIN 4S.
                                                                                                                    1 GGVCVQP 7
|||||:|
47 GGVCVKP 53
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870 AA;
                                                                              PRELIMINARY:
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870
91875 MW;
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85.7%;
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75.0%;
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Pred. No. 1.1e+02;
l; Mismatches 0
          Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 37;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DD9D4F7B77AC48CE CRC64;
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63;
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latent transforming
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Best Local Similarity
Matches 6; Conserv
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PFAM; PF00683; TB; 4.

PROSITE; PS00010; ASX_HYDROXYL; 14.

PROSITE; PS001022; EGF_1; UNKNOWN_2.

PROSITE; PS01186; EGF_2; 12.

PROSITE; PS01187; EGF_CA; 17.

Glycoprotein; EGF-11ke domain.

SEQUENCE 1587 AA; 169620 MW; 57A8
                                                                                                                                                                                                                                                                                                                       "Sequence and expression of a novel member (LTBP-4) of the latent transforming growth factor-beta binding proteins."; FBBS Lett. 411:164-168(1997).
EMBL; Y13622; CAA73944.1; -.
HSSP; P35555; LEMN.
INTERPRO: TRACCOLOR
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=97415399; PubMed=9271198;
Giltay R., Kostka G., Timpl R.;
                                                          123 GGVCVKP 129
                                                                                                                                                                                                                                                                             INTERPRO; IPRO00152; -.
INTERPRO; IPRO00561; -.
INTERPRO; IPRO01881; -.
INTERPRO; IPRO02212; -.
                                                                         1 GGVCVQP 7
                                                                                                          78.7%; ilarity 85.7%; Conservative
          June
          13,
                                                                                                         Score 37; DB
Pred. No. 1.1e
1; Mismatches
                                                                                                                                                                      57A832F95FA0AE46 CRC64;
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Mis Page Blonk (USDIO)

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Maximum
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Listing first 45 summaries
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1: /ggn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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Match Length
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Gapop 10.0 , Gapext 0.5
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US-08-849-281A-4
US-08-849-281A-3
US-08-849-281A-3
US-08-849-281A-3
US-08-845-809A-125
US-07-728-215-39
US-07-728-215-31
US-08-444-792-4
US-08-445-809A-108
US-08-448-199-16
US-08-484-509-16
US-08-484-509-10
US-08-476-349A-101
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-347-819-8
-278-091-15
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Sequence 125, Appli
Sequence 125, Appli
Sequence 127, Appli
Sequence 128, Appli
Sequence 129, Appli
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Sequence 17, Appli
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Sequence 20, Appli
Sequence 101, Appli
Sequence 2, Appli
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                Query Match 80.9
Best Local Similarity 75.0
Matches 6; Conservative
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31 66.0 181 1 US-08-483-859-15 31 66.0 181 1 US-08-472-173-15 31 66.0 181 2 US-08-487-167-15 31 66.0 181 2 US-08-286-149-15 31 66.0 181 2 US-08-296-149-15 31 66.0 181 2 US-08-801-499-15 31 66.0 181 3 US-09-074-660-15 31 66.0 181 3 US-09-074-659-15 31 66.0 181 4 US-09-106-468-15 31 66.0 181 4 US-09-106-468-15 31 66.0 181 4 US-09-106-467-15 31 66.0 181 4 US-09-106-467-15 31 66.0 810 2 US-08-820-170A-34 31 66.0 810 4 US-09-273-555-34 31 66.0 834 2 US-08-677-734A-9 31 66.0 834 2 US-08-677-734A-10 31 66.0 834 2 US-08-577-734A-10 31 66.0 834 2 US-08-577-734A-10	66.0 181 1 US 66.0 181 2 US 66.0 181 2 US 66.0 181 2 US 66.0 181 3 US 66.0 181 3 US 66.0 181 4 US 66.0 181 4 US 66.0 810 4 US 66.0 810 2 US 66.0 810 3 US 66.0 810 3 US 66.0 810 3 US		45	44 3	43 3	42 3	41 3		39											28 3
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		ALIGNMENTS	US-07-551-531-2	-08-677-734A-	US-08-677-734A-9	US-09-273-565-34	US-09-055-699-34	US-08-820-170A-34	US-09-106-467-15	US-09-106-466A-15	US-09-106-468-15	-09-074-659-	-09-074-660-	US-08-615-271-15	US-08-801-499-15	-08	-08	-08	-08	-08

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; STRANDEDNESS:
; TOPOLOGY: lin:
; MOLECULE TYPE:
US-08-975-114A-4
                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: WOrdperfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,114A
FILING DATE: NO. 5876714ember 20, 1997
CLASSIFICATION: 435
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PATENT NO. 5876714

GENERAL INFORMATION:

APPLICANT: Atsushi NISHTKAWA et al.

TITLE OF INVENTION: HUMAN GLYCOSYLTRANSFERASE GENE,

TITLE OF INVENTION: COMPOUNDS AND METHOD FOR INHIBITING CANCEROUS METASTASIS
                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: 08/107,173
FILING DATE: August 17, 1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 1-TELECOMMUNICATION INFORMATION: TELEPHONE: 202-721-8200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                  LENGTH:
TYPE: a
                                                                                                                                                                                                                                                                          NAME: Lee Cheng
REGISTRATION NUMBER: 40,949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A. ZIP: 20006
                                                                                                                                                                                             TELEFAX: 202-721-8250
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                                                                                  amino acid
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                                                                                                        531 amino acid residues
                                            linear
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Suite 800
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Score 38; DB Pred. No. 66; 1; Mismatches

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Length 531; Indels

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US-08-975-114A-5
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Best Local Similarity 75.v
Conservative
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                                                                                                                                                  Sequence 5, Application US/08975114A Patent No. 5876714
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                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                         -08-849-281A-4
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NAME: Lee Cheng
REGISTRATION NUMBER: 40,949
REFERENCE/DOCKET NUMBER: 97-05
TELECOMMUNICATION INFO:MATION:
TRIEPHONE: 202-721-6200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4, Application US/08849281A Patent No. 6153433
                                                                        APPLICANT: ACSUSHI NISHIKAWA et al.
TITLE OF INVENTION: HUMAN GLYCOSYLTRANSFERASE GENE,
TITLE OF INVENTION: COMPOUNDS AND METHOD FOR INHIBITING CANCEROUS METASTASIS
NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: E1j1 M
                                                          CORRESPONDENCE ADDRESS
                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 531 amino acid residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: M3-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                        112 GGVCFKPG 119
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STATE: D.C.
                               STREET:
                                             ADDRESSEE:
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                                                                                                                                                                                                                                                                   1 GGVCVQPG 8
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                            E: Wenderoth, Lind & Ponack, L.L.p
2033 K Street, N.W., Suite 800
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                                                                                                                                                                                                                                                                                                                                                                                                       linear
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VENTION: INHIBITOR FOR VIRAL REPLICATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wenderoth, Lind & Ponack, L.L.P. 33 K Street, N.W., Suite 800
                                                                                                                                                                                                                                                                                                                                                                                      polypeptide
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75.0%;
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Pred. No.
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66;
                                                                                                                                                                                                                                                                                                                       Length 531;
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RESULT 4
US-08-849-281A-3
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                             SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
FELECOMMUNICATION INFORMATION:
                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Eiji MIN
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 40,949
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-721-8200
TELEPAX: 202-721-8250
TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112 GGVCFKPG 119
                                                                                                             APPLICATION NUMBER: UFILING DATE: May 30, CLASSIFICATION: 514
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MEDIUM TYPE: Diskett
            NAME: Lee Cheng
REGISTRATION NUMBER: 40,949
REFERENCE/DOCKET NUMBER: 97
                                                                                                                                                                                                                                                                            STREET: 2033 K STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
                                                                                    APPLICATION NUMBER:
                                                                                                                                                                            OPERATING SYSTEM:
SOFTWARE: Wordper
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les 6; Conserv
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: August
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/975,114A FILING DATE: No. 5876714ember 20, 1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: U.S.A.
ZIP: 20006
                                                                                                                                                                                                                                                      20006
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                                                                                                                                                                                                                                                                                                        E: Wenderoth, Lind & Ponack, L.L.P. 2033 K Street, N.W., Suite 800
                                                                                                                                                                                                                                                                                                                                                                                    Eiji MIYOSHI et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               536 amino acid residues
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                                                                                                                                                                                                       IBM Compatible
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                                                                                                                                                                                                                        Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UMBER: 08/107,173
August 17, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette,
                                                                                                                                                                                          MS-DOS
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                                                                                                                                              US/08/849,281A
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                                                                                                                                                                                                                   3.5 inch, 1.44 mb
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       97-0529*/LC(MJ)/1
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Pred. No.
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                                                                  Query Match
Best Local S
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Best Local :
                                                                                                                                                                                                                             TELEPHONE: (202) 293-7060
TELEFAX: (202) 293-7860
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 536 amino acid residues
TYPE: amino acid
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TOPOLOGY: lin
MOLECULE TYPE:
                                                                                                                                           MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 293-7060
                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112 GGVCFKPG 119
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/859,931A FILING DATE: 21 MAY 1997 CLASSIFICATION: 514
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nes 6; Conserv
                                                                                                                                                                                         TYPE:
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                           GGVCVQPG 8
 GGVLVQPG 15
                                                        l Similarity
7; Conserv
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                                                                                                                                                                                      amino acid
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202-721-8250
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87.5%;
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                                                      Score 37; DB 2; Pred. No. 4.4; 0; Mismatches
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Pred. No.
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                                                                                                                                                                                                                                                 Sequence 39, Application US/07728215 Patent No. 5962643
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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FILING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP93/00603
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: ETGEMAN, JOhn W.
REGISTRATION NUMBER: 29,066
REGISTRATION NUMBER: 29,066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Honjo, Tasuku
APPLICANT: Matsuda, Fumi
                                                                                                             APPLICANT: Sheppard, Dean APPLICANT: Quaranta, Vito APPLICANT: Quaranta, Vito APPLICANT: Pytela, Robert TITLE OF INVENTION: A NO. 596 TITLE OF INVENTION: Thereof NUMBER OF SEQUENCES: 43
                                                                                                                                                                                                                                 GENERAL INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
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SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
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LENGTH: 118 amino acid
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                                                                                                    CORRESPONDENCE ADDRESS:
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                                 CITY: San Diego
STATE: Californ:
                                                                  STREET:
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COUNTRY: UIZIP: 92122
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                                                                                   ADDRESSEE:
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           California
: United States
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                                                               E: Pretty, Schroeder, Brueggemann & Clark 4370 La Jolla Village Drive, Suite 700
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HUMAN IMMUNOGLOBULIN VH GENE
SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
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Pred. No. 23;
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: Sequence 41, Application US/07728215

: Patent No. 5962643
                                                                                                                           CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: 931 87
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-9049
INFORMATION FOR SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TOPOLOGY: linear; MOLECULE TYPE: protein US-07-728-215-39
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                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 92 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC:-DOS/MS-DOS
SOFTWARE: Patentin Felease #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
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APPLICANT:
APPLICANT:
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                             TYPE: AMINO ACID
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/728,215
TOPOLOGY:
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              San Diego
: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    United States of America
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Quaranta, Vito
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Pred. No.
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Drive, Suite 700
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TOPOLOGY:
US-08-444-792-4
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Best Local Similarity
""" of the state of the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/218878

FILING DATE: 28-MAR-1994

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/821337

FILING DATE: 13-JAN-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/444490

FILING DATE: 01-DEC-1989

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/290224

ETITING TATES: 07.5002
                                                                                                                                                                   TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No.
                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 718 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 07/290224
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: Lee, Wendy M.
REGISTRATION NUMBER: 00,000
                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: 415/225-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380227
FILING DATE: 30-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: WinPatin (Ge
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 720 Kb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                 TELEFAX: 415/952-98
TELEX: 910/371-7168
                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/01
FILING DATE: 19-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 460 Point San Brun
CITY: South San Francisco
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82 VCIQPG 87
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Gorman, Cornelia M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IBM PC compatible SYSTEM: PC-DOS/MS-DOS
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MALY A.
METHOD FOR PREPARING WATER SOLUBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72.3%;
83.3%;
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Pred. No. 54;
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                                                Query Match
Best Local S
Matches 5
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5726290
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                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 718 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 720 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 07/44 FILING DATE: 01-DEC-1989 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/380227
FILING DATE: 30-7AN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/218878
                                                                                                                                                                                                                                                               TELEPHONE: 415/225-1994
                                                                                                                                                                                                                                                                                                                                                FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 13-JAN-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 530 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: McLean, John W. APPLICANT: Napier, Mary A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 613 VCIQPG 618
                                                                                                                                                TYPE: Ami
                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 00 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 460 Point San Bruno Blvd CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/290224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 28-MAR-1994
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                                                                                                                                                                                                                                                TELEFAX:
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3 VCVQPG 8
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                                                Similarity
5; Conserv
                                                                                                                                                                                                                                                                                                                                  Lee, Wendy M.
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                                                 Conservative
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                                                                                                                                                  Linear
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                                                               72.3%;
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                                            Score 34; DB 1; Le
Pred. No. 3.7e+02;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                  P0552P1C3D1
                                                                             Length 718;
                                                Indels
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US-07-728-215-32
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                                                                                                                                                                                                                                                                                  RESULT 12
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Best Local Similarity
""" hes 5; Conserv?
                                                                                                                                                                                                                               Sequence 108, Application US/08545809A Patent No. 6096878
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                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                  APPLICANT: Honjo, Tasunu
APPLICANT: Matsuda, Fumihiko
APPLICANT: Matsuda, Fumihiko
APPLICANT: MATSUDA, FUMAN IMMUNOGLOBULIN VH GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Campbell, Cathryn A.
REGISPATION NUMBER: 31,815
REFERENTION NUMBER: 93
REFERENTION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/07/728,215
FILING DATE: 19910711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Pretty, Schroeder, Brueggemann & Clark
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                  613 VCIQPG 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                613 VCIQPG 618
        COUNTRY: US
21P: 02110-2804
                                                CITY: Boston
STATE: MA
                                                               ADDRESSEE: Fish a ...
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
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                                                                                                                                                SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                  72.3%;
                                                                                              Richardson, P.C
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                                                                                                                                                                                                                                                                                                                                                                                                                  Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION: APPLICANT: RING,
                                           TELEFAX: (510) 655-3542
NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 108: SEQUENCE CHARACTERISTICS:
                                                                                    REGISTRATION NUMBER: 36,914
REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-2585
                                                                                                                                                                          APPLICATION NUMBER: US/00
FILING DATE: 07-JUN-.995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMAT:ON:
                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy lisk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: RING, DAVID B.
TITLE OF INVENTION: ANTIC
TITLE OF INVENTION: MOLEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: 10-MAY-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for CURRENT APPLICATION DATA:
                                                                                                                                                             NAME: SAVEREIDE,
                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS DOS
TOPOLOGY:
             LENGTH: 119 amino acids
                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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nes 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Freeman, John W. REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/545,809A FILING DATE: 27-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH:
                                                                                                                                                                                                                                                                                                                                         94662-8097
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INTELLECTUAL PROPERTY R440 - P.O. BOX 8097
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SYSTEM: Windows95
FastSEQ for Windows Version 2.0
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10-MAY-1993
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75.0%;
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Pred. No. 98;
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INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
FUNCTH: 119 amino acids
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                                                                                        Sequence 16, Application US/08484508 Patent No. 5948647
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                                                                        GENERAL INFORMATION:
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Best Local Similarity 75.0
Matches 6; Conservative
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           APPLICANT: RIGG, DAVID B.
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
NUMBER OF SEQUENCES: 18
CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REGISTRATION NUMBER: 36,914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LAM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (510) 601-2585
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TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY

TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 424
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ZIP: 94662-8097
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CITY: Emeryville
STATE: CA
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INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                          protein
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75.0%;
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Pred. No.
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Pred. No.
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STATE: CA
COUNTRY: USA
2IP: 94662-8097

COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTION DATA:
APPLICATION UMBER: US/08/484,508
FILING DATE: 07-JUN-1995
CLASSIFICATION: 34
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REFERENCE/DOCKET NUMBER: 0850.008
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-585
TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: protein
US-08-484-508-16:
Search completed: June 13, 2001, 14:16:35 Job time: 496 sec
                                                                                                                                                                                    Ouery Match 70.2%; Score 33; DB 2; Length 119; Best Local Similarity 75.0%; Pred. No. 98; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                  1 GGVCVQPG 8
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8 GGVLVRPG 15
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STREET: INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
CITY: Emeryville
STATE: CA
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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seq length: 2000000000
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Gapop 10.0 , Gapext 0.5
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Y79120
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                           Peptide antagonist
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Transforming growt
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Peptide antagonist
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                                                                                                                               Peptide antagonist
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RESULT
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ALIGNMENTS

05-JUN-2000 (first entry)
Peptide antagonist of zonulin.

Y79118;

Y79118 standard; Peptide; 8 AA.

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KW Zonulin; antagonist; zonula occludens toxin receptor;
KW blood-brain barrier; antiinflammatory; cerebroprotective;
KW neuroprotective; dermatological; antiuleer; antiviral;
KW antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
KW dypotensive; immunosuppressive; antiparasitic; vasotropic;
XX your word word of the first of the fi
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New peptide antagonist of zonulin useful as antiinflammatory agent for

Fasano A;

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RESULT
Y79122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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                                                             03-AUG-1998;
                                                                                                                    28-JUL-1999;
                                                                                                                                                                                                                                    WO200007609-A1
                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                               gastrointestinal inflammation; therapy
(UYMA-) UNIV MARYLAND BALTIMORE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y79122;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
nes 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGVCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9gvcvqdg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cerebral ischamia, stroke,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       œ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lupus
                                                          98US-0127815
                                                                                                                99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 46; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cerebral edema, gastritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .2e+05;
s 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           recombinant DNA techniques. The peptide antagonists are used as an C antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine and yet does not physiologically modulate the opening of TV in the contract of the strointestinal inflammation conditions give rise to concreased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, e.g. clostridium difficile infection, caused by infection, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by imphatic obstruction, e.g. congenital intestinal lymphangiectasia, carcolidosis lymphoma, mesenter tuberculosis, and after surgical mesentering and the surgical mesentering tuberculosis, and after surgical mesentering the protein cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
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04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                   Vaccine; eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepa nongonococcal uretritis; epidymitis; cervicitis; salpingitis; bartholinitis; pneumopathy; venereal lymphogranulomatosis.
                                                                      27-NOV-1998;
                                                                                                                                             10-JUN-1999
                                                                                                                                                                                                                WO9928475-A2
                                                                                                                                                                                                                                                                                   Chlamydia trachomatis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-OCT-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y36831 standard; Protein; 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coellac disease, eosinophilic gastroenteritis, and immune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e.g. systemic lupus erythematosus or food allergies, primarily milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 46; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GGVCVQDG 8
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7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence of a Chlamydia trachomatis protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
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A
98US-0107077
                                                                      98WO-IB01939
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 43; DB 21;
Pred. No. 3.2e+05;
1; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                              perihepatitis;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y36754-Y37949 are encoded by open reading frames (ORFS) of the genome of Chlamydia trachomatis (see 201425). The polypeptides can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis; pneumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these diseases.
New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genome sequence of Chlamydia trachomatis
                                                                                                                                            03-AUG-1998;
                                                                                                                                                                                                                                                                                neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-371125/31.
                                                           WPI; 2000-205565/18
                                                                                                                                                                        28-JUL-1999;
                                                                                                                                                                                                                            WO200007609-A1
                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                         blood-brain barrier;
                                                                                                                                                                                                                                                                                                                                                    Zonulin; antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Y79117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y79117 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-NOV-1997;
17-DEC-1997;
                                                                                                                (UYMA-) UNIV
                                                                                                                                                                                                  17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                 Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GGVCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggycvqdg 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 710-711; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                  MARYLAND BALTIMORE
                                                                                                                                             98US-0127815
                                                                                                                                                                       99WO-US16683
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97FR-0016034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide;
                                                                                                                                                                                                                                                                                                                                                    zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89.1%;
                                                                                                                                                                                                                                                                                                                                         antiinflammatory; cerebroprotective;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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This present sequence is that of a peptide antagonist of zonulin (C (2), one of 25 such peptides (see Y9105-29) of the invention, c which bind to a zonula occludens toxin (ZOT) receptor, yet do not C (T), the peptide antagonists are based on a common motif of ZOT c and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of c recombinant DNA techniques. The peptide antagonists are used as an eximinflammatory agents in the treatment of gastrointestinal cinflammation, where they bind to the ZOT receptor in the intestine castrointestinal intestine. Gastrointestinal inflammation conditions give rise to cincreased intestinal permeability and the peptide is useful for c treating intestinal conditions that cause protein losing enteropathy c enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with c classences collagenous colitis, inflammatory bowel disease, diseases marked by Imphantic obstruction, e.g. congenital intestinal lymphangiactusals, correction of congenital heart disease with Fontan's operation, collagenous colitis, inflammatory bowel disease, diseases with correction of congenital heart disease with Fontan's operation, collagenous colitis, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, collagenous colitis, mesenteric tuberculosis, and immune disease, collagense, eosinophilic gastroenteritis, and immune diseases, collagense, eosinophilic gastroenteritis, and immune diseases, collagense, primarily to milk.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Page 45; 69pp; English
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Matches
                                             Query Match
                                      Local
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              1 GGVCVQDG
ggvcvgpg
                              Similarity 7; Conserv
                               Conservative
               8
                                     84.8%;
87.5%;
                             Score 39; DB Pred. No. 3.2e 0; Mismatches
                              0;
                                      .2e+05;
                                              21;
                                             Length 8;
                              Indels
                              0;
                              Gaps
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RESULT
Y79126
                                                                                                                                     Synthetic
                                                                                                                                                                             Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                 Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                Y79126 standard; Peptide; 8
                                                                       28-JUL-1999;
                                                                                            17-FEB-2000
                                                                                                                 WO200007609-A1.
                                                                                                                                                          hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                                                                                              Y79126
                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                       (first entry)
                                                                       99WO-US16683
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Fasano A;

03-AUG-1998;

98US-0127815

(UYMA-) UNIV

MARYLAND BALTIMORE

WPI; 2000-205565/18

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RESULT
Y79106
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local :
03-AUG-1998;
                                                 28-JUL-1999;
                                                                                                        17-FEB-2000
                                                                                                                                                               WO200007609-A1
                                                                                                                                                                                                                                                                                                                                 Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                           antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y79106 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 48; 69pr; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity les 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                              immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                   cytostatic; anti-HIV; vulnerary; antiallergic;
mmunosuppressive; antiparasitic; vasotropic;
                                              99WO-US16683.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
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RESULT
W09406
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Trecombinant DNA techniques. The peptide antagonists are used as an tilinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine can yet does not physiologically modulate the opening of TV in the concerns ont physiologically modulate the opening of TV in the concerns ont physiologically modulate the opening of TV in the concerns ont physiologically modulate the opening of TV in the concerns ont physiologically modulate the opening of TV in the concerns on the conditions of the peptide is useful for the concerns of the conditions of the peptide is useful for concerns on the conditions of the peptide is useful for the consequence of the condition, e.g. Clostridium difficile infection, contraction, e.g. constraints parasite concerns of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                               TGF-alpha; human; transforming growth factor alpha-HI; treat; promote; wound healing; neurological functioning; trauma; AID ocular disorder; susceptibility; diagnosis.
                                                                                      Peptide
                                                                                                                                                                                                                                                                                                           Transforming growth factor alpha-HI.
                                                                                                                                                                                                                                                                                                                                                                      03-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09406 standard; Protein; 380 AA.
                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (207) receptor, yet do not physiologically modulate the opening of mammalian tight junctions and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or be recombinant DNA technisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 41; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYMA-) UNIV MARYLAND BALTIMORE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GGVCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 grvcvqdg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
                                /note= "putative signal peptide"
40..266
                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82.6%;
        "putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 38; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
precursor sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
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RESULT
Y79120
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA encoding transforming growth used to promote wound healing, to after trauma or AIDS dementia
                                                                                                                       gastrointestinal inflammation;
                                                                                                                               blood-brain barrier; antlinflammatory; cerebroprotective; neuroprotective; dermatological; antluicer; antlviral; antlbacterial; cytostatic; antl-HIV; vulnerary; antlallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                           Zonulin; antagonist; zonula occludens toxin receptor;
                                                                                                                                                                                                                       05-JUN-2000
                                                                                                                                                                                                                                           ;02164A
                                                                                                                                                                                                                                                                                                                                                                                                                                                         to promote wound healing, to restore neurological functioning after trauma or AIDS dementia, to treat ocular disorders, etc. Disease or a susceptibility to disease can be diagnosed by determining a mutation in the nucleic acid sequence encoding TGF-alpha-HI Receptors to TGF-alpha-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is that of human transforming growth factor (TGF) alpha-HI. TGF-alpha-HI or its inhibitor can be used to treat a patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9639497-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
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          03-AUG-1998;
                                28-JUL-1999;
                                                                           WO200007609-A1
                                                                                                 Synthetic
                                                                                                                                                                                                                                                                   Y79120 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC
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                                                                                                                                                                                                                                                                                                                         85
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                                                                                                                                                                                                                                                                                                                                              GGVCVQDG 8
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                                                                                                                                                                                                                                                                                                                       ggvckedg
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                                                                                                                                                                                                                                                                                                                                                                     Similarity
6; Conser
                                                                                                                                                                                                 antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 used
                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fuldner RA,
                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                         92
                                                                                                                                                                                                                                                                                                                                                                                                                           ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                to identify (ant)agonists
          98US-0127815
                                99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96WO-US09448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  267..316
/note= "putative
317..380
                                                                                                                                                                                                                                                                 Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note-
                                                                                                                                                                                                                                                                                                                                                                               80.48;
75.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "putative transmembrane portion"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Meissner
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                                                                                                                                                                                                                                                                                                                                                                    Score 37; DB
Pred. No. 1.1e
1; Mismatches
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                                                                                                                    therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     factor alpha HII polypeptide - restore neurological functioning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            soluble portion'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wei
                                                                                                                                                                                                                                                                                                                                                                               1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                         DB 18;
                                                                                                                                                                                                                                                                                                                                                                                          Length 380;
                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      patient
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recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TU in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonuin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor and human zonulins, which is believed to be critical for receptor.
                                                                                                                                     sarcoldosis lymphoma, mesencertic coverection of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, eosinophilic gastroenteritis, eosinoph
                                                                                                                                                                                                                                                                                                                            mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fasano A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 46; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYMA-) UNIV MARYLAND BALTIMORE
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Best Loc
Matches
                                           Query Match
                                    Local
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              1 GGVCVQDG
Similarity 7; Conserv
                             Conservative
                                     78.3%;
87.5%;
                             Score 36; DB Pred. No. 3.2e 0; Mismatches
                             0
                                     3.2e+05;
                                            21;
                                           Length 8;
                             Indels
                             0
                             Gaps
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0;

Sequence

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RESULT
Y79121
Y79121;
                                           Y79121 standard; Peptide; 8 AA.
                                                9
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Peptide antagonist of zonulin.

05-JUN-2000

(first entry)

밁 Ωy

antibacterial; cytostatic; anti-HIV; vulnerary; hypotensive; immunosuppressive; antiparasitic; v gastrointestinal inflammation; therapy. WO200007609-A1 Synthetic neuroprotective; dermatological; antiulcer; antiviral; blood-brain Zonulin; antagonist; barrier; zonula occludens toxin antiinflammatory; cerek cerebroprotective; receptor; antiallergic;

17-FEB-2000

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Query Match
Best Local Similarity
""" ones 6; Conserv:
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                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (207) receptor, yet do not (TJ). The peptide antagonists are based on a common motif of zon and human zonulins, which is believed to be critical for receptor of binding. They can be prepared by chemical synthesis or by use of antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestinal conditions give rise to treatment of the combinate of astrointestinal inflammation conditions give rise to treatment of the combined of the intestinal conditions of the caused by infection, e.g. Clostridium difficile infection, the caused by infection, e.g. Clostridium difficile infection, bacterial overgrowth, whipple's disease with concerning conditions, shigellosis, viral gastroenteritis, parasite collagenous colitis, inflammatory bowel disease, diseases with collagenous colitis, inflammatory bowel disease, diseases with concerning correction of congenital heart disease with Fontan's operation, collagenous without ulceration, e.g. Menetrier's disease, costanghalic gastroenteritis, and immune diseases, costanghalic gastroenteritis, and immune diseases.
Misc-difference
                                                        Homo sapiens
                                                                                             Human; guanylin;
bacterium; heat;
                                                                                                                                                  Human guanylin preprohommone
                                                                                                                                                                                                                                     Y42459;
                                                                                                                                                                                               21-DEC-1999
                                                                                                                                                                                                                                                                  Y42459 standard; Protein; 115 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 46; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-205565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fasano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                        1 GGVCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lupus erythematosus or food allergies, primarily
Location/Qualifiers
                                                                                   ; preprohormone; intestinal guanylate cyclase regulator; stable enterotoxin; laxative; constipation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                               78.3%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 36;
Pred. No.
                                                                                                                                                    sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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RESULT 11
Y42460
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                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
""+" 7; Conserv:
                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-590442/50.
                                                                                                   23-JUN-1992;
                                                         (SEAR ) SEARLE & CO G
                                                                              23-JUN-1992;
                                                                                                                        19-OCT-1999
                                                                                                                                                             Homo sapiens
                                                                                                                                                                                  Human; guanylin;
bacterium; heat s
                                                                                                                                           US5969097-A
                                                                                                                                                                                                                                      21-DEC-1999
                                                                                                                                                                                                               Human guanylin preprohormone
                                                                                                                                                                                                                                                                           Y42460 standard; Protein; 115 AA
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                   coding sequence. Guanylin is an intestinal guanylate cyclase regulate which has similarity to bacterial heat stable enterotoxins which activate intestinal guanylate cyclases. The guanylin peptide can be used as a laxative in the treatment of constipation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y42458). This sequence is the encoded protein from a composite DNA sequence isolated by probing a human duodenum cDNA library with the corresponding rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-590442/50
N-PSDB; Z22677.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isolated protein used as a laxative in the treatment of constipation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5969097-A
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                                                                                                                                                                                                                                                                                                                            20 ggvtvqdg 27
                                                                                                                                                                                                                                                                                                                                                 1 GGVCVQDG 8
                                      RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RC,
                                                                                                                                                                                                                                                                                                                                                                                                                       115 AA;
                                     Currie
                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fig 1;
                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Currie MG,
                                                                             92US-0903029
                                                                                                 9208-0903029
                                                                                                                                                                           ; preprohormone; intestinal guanylate cyclase regulator; stable enterotoxin; laxative; constipation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92US-0903029
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= unknown
/note= "encoded
                                      ğ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14pp; English.
                                                                                                                                                                                                                                                                                                                                                                             78.3%;
87.5%;
                                      FO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FOK KF;
                                      XF)
                                                                                                                                                                                                                                                                                                                                                                  Score 36; DB
Pred. No. 52;
0; Mismatches
                                                                                                                                                                                                              sequence.
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                                                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 guanylate cyclase regulator
                                                                                                                                                                                                                                                                                                                                                                                    Length 115;
                                                                                                                                                                                                                                                                                                                                                                 Indels
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Isolated protein used

as a

laxative in the treatment of constipation

Disclosure;

Fig

2,

14pp;

English

Sequence constipation.

115 AA;

Local Similarity

78.3%;

Score Pred.

ж 36; DB 52;

20;

Length 115;

Conservative

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RESULT
Y27892
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 7
                                                                                                                            07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
                                         Carter I
Kyaw H,
                                                                                                                                                                                                                                                                                  Human; secreted protein; fusion protein; gene therapy; protein therapy; diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; developmental abnormality; foetal deficiency; blood; allergy; renal; immune system; asthma: lymphocytic disease; brain; hepatic; lymphoma; inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS; cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
                                                                                                                      07-NOV-1997
                                                                                                                                                                07-NOV-1997
                                                                                                                                                                       07-NOV-1997;
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07-NOV-1997;
                                                                                                                                                                                                                  04-NOV-1998;
                                                                                                                                                                                                                                  20-MAY-1999
                                                                                                                                                                                                                                                  W09924836-A1
                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                 30-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                  Y27892 standard;
                                                                                                             17-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GGVCVQDG 8
                1999-337740/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ggvtvqdg
                                r KC, Ebner R,
H, Lafleur DW,
SM, Shi Y, So
                                                                                                                                                                                                                                                                                                                                                                secreted
                                                                   HUMAN GENOME
                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            27
                                                                                                           97US-0064908.
97US-0064911.
97US-0064912.
97US-0064983.
97US-0064984.
97US-0064985.
97US-0064987.
97US-0064980.
                                                                                                                                                                                                                                                                                                                                                              protein encoded
                                                                                    97us-0066089
                                                                                           97US-0066094.
97US-0066095.
                                                                                                                                                                                       97US-0066100.
97US-0064900.
                                                                                                                                                                                                                 98WO-US23435
                                                                                                                                                                                                                                                                                                                                                                                                                  Protein; 115
                                W, Moore
Soppet DR
                                                                   SCI INC
                                                  Endress
                                 DR,
                                     PA,
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                                     J GA,
N1
                                 Wei
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                               gene No.
                                 Feng
II J,
Y;
                                         P, Janat
Olsen HS,
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                                         Rosen
                                         CA;
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This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y42458). Guanylin is an intestinal guanylate cyclase regulator which has similarity to bacterial heat stable enterotoxins which activate intestinal guanylate cyclases. The guanylate can be used as a laxative in the treatment of constraints.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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W05520
В
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence represents a secreted human protein encoded by the gene clone detailed in the descriptor line. The gene can be used to generate fusion proteins by linking to the gene to a human immunoglobulin for portion (e.g. x84924) for increasing the stability of the fused protein as compared to the human protein only.

The invention relates to 125 novel genes and their fragments (nucleic acid sequences: x84933-x85057; amino acid sequences y27567-Y27933) which are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Also, pathological conditions can be diagnosed by determining the amount of the new polypeptides in a sample or by determining the presence of mutations in the new polypucleotides, based or which tissues they are most highly expressed in (see x84933 for described
             New isolated human cytomegalovirus nucleic acid - from Towne and Toledo strains, used to develop prods. for the diagnosis, preven and treatment of human CMV infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human secreted proteins and coding sequences useful for treating disorders of the immune system and hyperproliferative disorders
                                                                                                                                       (AVIR-)
                                                                                                                                                                                              26-MAR-1996;
                                                                                                                                                                                                                          03-OCT-1996
                                                                                                                                                                                                                                                      WO9630387-A1
                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                   HCMV Toledo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W05520;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W05520 standard;
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                                                                     1996-455265/45.
DB; T41418.
                                                                                                                                                                                                                                                                                                                                                                                                                      HCMV; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ggvsvqdg
                                                                                                                                                                                                                                                                                                                                                                                            cytomegalovirus Toledo strain.
                                                                                                             Spaete
                                                                                                                                         AVIRON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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115
                                                                                                                                                                                              96WO-US04100
                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                      diagnosis; UL151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.3%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       507pp; English.
                                                                                                                                                                                                                                                                                                          "unidentified
                                                                                                                                                                                                                                                                                                                                      "unidentified
                                                                                                                                                                                                                                                                                "unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein (clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 36; DB:
Pred. No. 52;
0; Mismatches
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                                                                                                                                                                                                                                                                                amino acid'
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                                                                                                                                                                                                                                                                                                          acid"
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                           prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT
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Best Local :
    This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of antiinflammatory agents in the treatment of gastrointestinal
                                                                                                                                                                                  New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                           Claim 1; Page 42; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiloflammatory; cerebroprotective; neuroprotective; dermatological; antilocer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                        WPI; 2000-205565/18.
                                                                                                                                                                                                                                                                                                                   (UYMA-) UNIV MARYLAND HALTIMORE
                                                                                                                                                                                                                                                                                                                                                     03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                  17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                    28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel protein UL151 (405520) is the product of an open reading frame found in a novel nucleic acid (T41418) isolated from the Toledo strain of human cytomegalovirus (HCMV). UL151 and other novel (see also W05502-19) and known (see also W05500-01) proteins of the Toledo strain, as well as new proteins (see also W05521-24) from HCMV Towne, can be produced in transformed host cells and used surface glycoproteins that are immunogenic or responsible for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y79110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y79110 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   surface glycoproteins that are immunoyense of an infected tissue tropism, or may influence the immune response of an infected
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72 ggvcgedg 79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Page 88-89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antagonist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            336 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                               99WO-US:.6683.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   zonulin.
The peptide antagonists are used he treatment of gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 36;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to contreased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, e.g. clostridium difficile infection, conference infestation, bacterial overgrowth, whipple's disease, diseases with concertain controls, e.g. gastrifits, parasite mucosal erosion or ulcerations, e.g. systricts, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by carcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Frontan's operation, correction of congenital heart disease with Frontan's operation, collicated disease, without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, comities, systemic lupus erythematosus or food allergies, primarily to milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                                 WPI; 199
N-PSDB;
                                                                                                                            Disclosure; Fig 18; 83pp; English.
                                                                                                                                                                   New Vibrio cholerae strains -
                                                                                                                                                                                                                                                                                                                         05-JUN-1991;
                                                                                                                                                                                                                                                                 (UYMA~) UNIV MARYLAND BALTI.
                                                                                                                                                                                                                                                                                                                                                                                WO9118979-A
                                                                                                                                                                                                                                                                                                                                                                                                         Vibrio cholerae
                                                                                                                                                                                                                                                                                                                                                    12-DEC-1991
                                                                                                                                                                                                                                                                                                                                                                                                                             ZOT; cholera; vaccine; enterotoxin; diarrhoea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zonula occludens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAR-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R20006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R20006 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGVCVQDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 grlcvqdg 8
                                                                                                                                                                                                              1992-007465/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 6; Conserv
                                                                                                                                                       encoding toxin, used as vaccines
                                                                                                                                                                                                                                      Baudry-Maurelli B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             toxin
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75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          399
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Pred. No. 3.2e+05;
1; Mismatches 1
                                                                                                                                                                   comprise restriction
                                                                                                                                                                                                                                     Fasano
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                                                                                                                                                      against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                    n endonuclease
cholera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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The amino acid sequence is that of the zonula occludens toxin (ZOT). It may be responsible for diarrhoea in some strains of cholera and the ZOT gene or fragments of it are deleted from strains of Vibrio cholerae (V.c.) to be used as vaccines. These V.c. strains have 100% efficacy in protecting humans against subsequent infection with a strain of a similar serotype and avoid undesirable side effects such as diarrhoea, nausea and cramping. Cultures of these strains may be

used for prodn.

of vaccines

against

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Ouery Match

Deat Local Similarity 75.0%; Pred. No. 2.3e+02;

Matches 6: Conservative 1: Mismatches 1: Indels 0: Gaps 0:

Oy 1 GGVCYODG 8

Db 291 gricydg 298

Search completed: June 13, 2001, 14:14:37

Job time: 378 sec
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Mis Pogo Blonk (Uspio)

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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                              Result
                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                    Score
                                                                                                               34
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length:
                                                                                                                                                                                                                                                                                     Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCT-US01-05825A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                June 13, 2001, 14:10:45; Search time 130.61 Seconds (without alignments) 4.209 Million cell updates/sec
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78.3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198801 seqs, 68722935 residues
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Gapop 10.0 ,
 77777777777777777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
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                                                                                                                                                                                                                                                                                                                                                                                         pir1:*
pir2:*
                                                                                                                                                                                                                                                                                                                                                                        pir3:*
pir4:*
                                                                                                                                                                                                                                                                                    Length
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704
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340
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633
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399
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D83353
T06130
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H81681
G01639
                                                                                                      A48040
A27179
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B49151
B82197
                  T08466
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                                                                                 hypothetical prote
meprin A (EC 3.4.2
collagen alpha 1(I
hypothetical prote
UDP-3-O-(R-3-hydro
                         adhesive plaque pr
hypothetical prote
                                            hypothetical prote dihydrolipoamide d
                                                               N4-(beta-N-acetylg
protein kinase hom
                                                                                                                               glutamate N-acetyl mannitol dehydroge
                                                                                                                                                                                                                                                         hypothetical prote maf protein TC0628
                                                                                                                                                           fibroblast growth zona occludens tox
                                                                                                                                                                                                 hypothetical prote hypothetical prote
                                                                                                                                                                                                                                                                                    Description
                  carbonate dehydrat
                                                                                                                                                   zonula occludens
                                                                                                                                                                              fibroblast growth
                                                                                                                                                                                                                                      guanylin precursor
                                                                                                                                                                                                                                               transmembrane prot
                                                                                                                                                                                                                   ibroblast growth
                                                                                                                                                                                       ibroblast growth
```

ALIGNMENTS

RESULT

hypothetical protein CT349 - Chlamydia trachomatis (serotype D, strain UW3/Cx) C;Species: Chlamydia trachomatis C;Date: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 08-Oct-1999 C;Accession: F71525

S.; Lammel, C.J.;

Fan,

٦ ;

Marathe,

R . .

Aravind, L.; Mitche

an obligate intracellular pathogen of humans: Chlamydia $\mbox{\sc MUID}\xsp : 99000809$

C; Accession: F71525
R; Stephens, R.S.; Kalman, S.;
Science 282, 754-759, 1998
A; Title: Genome sequence of at
A; Reference number: A71570; M
A; Accession: F71525

A; Status: preliminary

```
A;Molecule type: DNA
A;Residues: 1-196 <TET>
A;Cross-references: GB:AE002331; GB:AE002160; NID:g7190662; PIDN:AAF39457.1; PID:g719
A;Experimental source: strain Nigg (MoPn)
C;Genetics:
A;Gene: TC0628
C;Superfamily: septum formation protein maf
                                                                                                                                                                                       R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hicke, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzbe Nucleic Acids Res. 28, 1397-1406, Ala, Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39 A;Reference number: A81500; MUID:20150255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Experimental source: serotype D, strain UI C;Genetics: A;Gene: CT349
C;Superfamily: septum formation protein maf
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A;Molecule type: A;Molecule type: A;A;Molecule type: A;A;A;A;Residues: 1-196 <ARN>
A;Cross-references: GB:AE001308; GB:AE001273; NID:g3328766; PIDN:AAC67944.1; PID:g332
                                                                                                                                                                                                                                                                                                                                maf protein TC0628 [imported] - Chlamydia muridarum (strain Nigg)
C;Species: Chlamydia muridarum, Chlamydia trachomatis McPn
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-May-2000
C;Accession: H81681
                                                                                                                                                                    A; Status: preliminary
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Matches 7
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87.5%;
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A:Experimental source: plasma
A:NOte: amino-terminal sequencing of
C:Comment: Guanylin is an endogenous
n of the same receptor.
C:Genetics:
                                                                                                                                          A; Molecule type: protein A; Residues: 22-68 < KUH>
                                                                                                                                                                                A;Cross-references: GB:M97496; NID:g183414; PIDN:AAA35915.1; PID:g183415 R;KUhn, M.; Raida, M.; Adermann, K.; Schulz-Knappe, P.; Gerzer, R.; Heim, FEBS Lett. 318, 205-209, 1993 A;Title: The circulating bioactive form of human guanylin is a high molec A;Reference number: S29807; MUID:93178628
                                                                                                                                                                                                                                                                                                                                 A;Cross references: GB:M95174; NID:g306823; PIDN:AAA58625.1; PID:g306824 A;Note: sequence extracted from NCBI backbone (NCBIN:115377, NCBIP:115378) R:Mlegand, R.C.; Kato, J.; Huang, M.D.; Fok, K.F.; Kachur, J.F.; Currie, M. A;Title: Human guanylin: cDNA isolation, structure, and activity. A;Reference number: S29228; MUID:93011964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              guanylin precursor [validated] - numan
C:Species: Homo sapiens (man)
C:Date: 21-Sep-1993 #sequence_revision 26-May-1995 #text_change 08-Dec-2000
C:Accession: A46279; S29228: S29807
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A; Residues: 1-115 <WIE>
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A;Title: Precursor structure, expression, and tissue distribution of human guanylin. A;Reference number: A46279; MUID:93028409
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A; Residues: 1-115 <DE1>
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C:Date: 21-Dec-1996 #sequence_
C:Accession: G01639
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A; Residues: 1-380 <EIB>
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7; Conserv
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GDB:136450; OMIM:139392
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75.08;
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87.5%;
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                                                             form and molecular weight of mature form by for an intestine-specific receptor guanylyl
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C; Function:
A; Description:
C; Superfamily:
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                                                                                                                                                                                             A; Experimental
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                                                                                                                                 A;Gene: lic2B
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G/Superfamily: basic fibroblast growth factor receptor 1; immunoglobulin homology; pr
G/Keywords: alternative splicing; ATP; autophosphorylation; growth factor receptor; m
F/1-172/Domain: protein kinase homology (fragment) <KIN-
F/23,40,132/Active site: Lys, Glu, Asp #status predicted
F/137,150/Binding site: magnesium (Asn, Asp) #status predicted
F/163/Binding site: phosphate (Tyr) (covalent) (by autophosphorylation) #status predi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEBS Lett. 314, 176-178, 1992
A:Title: Identification of four FGF receptor genes
A:Reference number: S27019; MUID:93093167
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$27022
$27022
$1broblast growth factor receptor - Japanese medaka N;Contains: protein-tyrosine kinase (EC 2.7.1.112) C;Species: Oryzias latipes (Japanese medaka) C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #
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A; Residues: 1-172 <EMO>
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C;Superfamily: guanylin
C;Keywords: hormone; intestine
E;1-21/Domain: signal sequence #status predicted <SIG>
E;22-115/Product: guanylin #status experimental <MAT>
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ce: strain RM7004
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Query Match Best Local

Similarity

78.3%; 85.7%;

Score Pred.

36; No.

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fibroblast growth factor receptor - quail C;Species: Coturnix coturnix (quail) C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999 C;Accession: IS0128; S42803 R;Marcelle, C.; Eichmann, A.; Halevy, O.; Breant, C.; Le Douarin, N.M.
                                                                                RESULT
150128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C:Species: Arabidopsis thaliana (mouse-ear cress)
C:Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
C:Accession: T47524
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A;Accession: T30620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N;Alternate names: MC018L
C;Species: Molluscum contagiosum virus 1
C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 11-May-2000
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A; Experimental source: cultivar C
C; Genetics:
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A; Residues: 1-680 <SEN>
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Science 273, 813-816, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: T30620
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A; Introns: 233/3;
A; Note: F16L2.50
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A; Residues: 1-633 <JOR>
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A; Accession: T47524
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                                                                                                                                                                                                                                                                                           A; Note:
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                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary; translated
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85.7%;
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                                                                                                                                                                                                                          Score 36;
Pred. No.
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                A; Cross-references:
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C;Accession: B49151
R;Shi, D.L.; Feige, J.J.; Riou, J.F.; DeSimone, Development 116, 261-273, 1992
A;Title: Differential expression and regulation A;Reference number: A49151; MUID:93130775
A;Accession: B49151
                                                                                                                                                                                                                                                          fibroblast growth factor receptor 4 - Iberian ribbed newt
C;Species: Pleurodeles waltlii (Iberian ribbed newt)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:X65059
C;Superfamily: basic fibroblast growth factor receptor C;Keywords: ATP; growth factor receptor C;Keywords: ATP; growth factor receptor F;283-354/Domain: immunoglobulin homology <IMM>F;484-769/Domain: protein kinase homology <KIN>F;492-500/Region: protein kinase ATP-binding motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Shi, D.L.; Feige, J.J.; Riou, J.F.; DeSimone, D.W.; Boucaut, J.C. submitted to the EMBL Data Library, March 1992
A;Description: Receptores during early development of the urodele F
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C;Superfamily: basic fibroblast growth factor receptor
C;Keywords: ATP; growth factor receptor
C;Keywords: ATP; growth factor receptor
F;176-247/Domain: immunoglobulin homology <TMM>
F;377-662/Domain: protein kinase homology <KIN>
                                          A; Molecule type: nucleic acid
A; Residues: 1-822 <SHI>
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A; Residues: 1-822 <SHI>
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C;Species: Pleurodeles waltlii (Iberian ribbed newt)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 16-Jul-1999
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A; Residues: 1-713 <MAR>
                                                                                       A; Status: preliminary
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protein kinase ATP-binding motif
GB:X65059;
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85.7%;
                      NID:g64252; PIDN:CAA46192.1; PID:g64253
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A;Cross-references: GB:M83563; NID:g155314; PIDN:AAA27582.1; PID:g155315
A;Note: sequence extracted f:om NCBI backbone (NCBIN:77488, NCBIP:77491)
                                                                                                                                                                                                                                                                                                                                                                                       R:Baudry, B.; Fasano, A.; Ketley, J.; Kaper, J.B. Infect. Immun. 60, 428-434, 1992
A;Title: Cloning of a gene (zot) encoding a new the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Species: Vibrio cholerae
C:Date: 10-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
C:Accession: A43864
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Heidelberg, J.F.; Elsen, J.A.; Nelson, W.C.; Clayton, R.A.; Chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, I. R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M. Nature 406, 477-483, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             zona occludens toxin VC1458 [imported] - Vibrio cholerae (group O1 strain N16961) C;Species: Vibrio cholerae (c;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2000 C;Accession: B82197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:AE004224; GB:AE003852; NID:g9655952; PIDN:AAF94615.1; GSPDB:GN001
A;Experimental source: sero(roup O1; strain N16961; biotype El Tor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Note: sequence extracted from NCBI backbone (NCBIN:122598, NCBIP:122599) C;Superfamily: basic fibroklast growth factor receptor 1; immunoglobulin h C;Keywords: ATP; growth factor receptor F;283-354/Domain: immunoglobulin homology <IMM>F;283-354/Domain: protein kinase homology <KIN>F;484-769/Domain: protein kinase ATP-binding motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-399 <HEI>
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Gene: VC1458
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GGVCVQDG 8
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                                                                Similarity 6; Conser
                                                         Conservative:
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75.08;
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75.0%;
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85.7%;
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Pred. No. 44;
1; Mismatches
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H.; Dragoi, I.; Sellers,
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A; Status. A; Status A; Shatus A; Molecule type: DNA A; Residues: 1-491 <570>
A; Cross-references: GB: AE004660; G: AE004660; AE00460
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C;Superfamily: conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic A;Reference number: A82950; MUID:20437337
A;Accession: D83353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: D83353
R;Stover, C:K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mannitol dehydrogenase PA2342 [imported] - Pseudomonas aeruginosa (strain PAO1) (Species: Pseudomonas aeruginosa (C;Date: 15-Sep-2000) #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                   C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .; Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary
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A:Start codon: GTG
C:Superfamily: glutamate N-acetyltransferase
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A;Residues: 1-402 <MTH>
A;Cross-references: GB:AE000806; GB:AE000666; NID:g2621222; PIDN:AAB84688.1; PID:g262
A;Experimental source: strain Delta H
C;Genetics:
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                                                                                      Query Match
Best Local S
Matches 5
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A;Accession: C69110
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1 GGVCVQDG 8
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                                                                     Score 35; DB Pred. No. 54; 1; Mismatches
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Pred. No. 45;
0; Mismatches
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A.; Larbig,
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GGYCIDDG 141

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Maximum DB
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Gapop 10.0 , Gapext 0.5
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 DB
                                                       URE1_CLOPE
UGS3_PEA
TRS1_HCMVA
BGLS_HANAN
IRS1_HCMVA
PTPN_BOVIN
PTPN_HUMAN
PTPN_MOUSE
                                                                                                                                                                                                                                                 FP2_MYTGA
CAL_MYTGA
UGS3_SOLTU
BGL1_ASPAC
EF2_BIAHO
DDR1_RAT
DDR1_HUMAN
CA11_CHICK
GLTB_A20BR
PCK5_MOUSE
NTC1_MOUSE
NTC1_MOUSE
HEM6_HORVU
Y765_HAEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GUAN_HUMAN
LI2B_HAEIN
ZOT_VIBCH
MEPB_MOUSE
ASPG_FLAME
STHA_MYCTU
                     PTPN_RAT
SM5B_MOUSE
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                                                                                                             O hordeum vul
f haemophilus
c caenorhabdi
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clostridium
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human cytom
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7 gallus gall
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2 mus musculu
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RESULT 2
LI2B_HAEIN
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                                                                             This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
                                                                                                                                                                                               STRAIN-KM / V. Jennings M.P., Moxon R.E.;
High N.J., Jennings M.P., Moxon R.E.;
Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
-I- FUNCTION: INVOLVED IN EXTRACELLULAR LIPOOLIGOSACCHARIDES (LOS)
BIOSYNTHESIS AND VIRULENCE EXPRESSION. INVOLVED IN THE SYNTHESIS
TITGOSACCHARIDE MOIETY OF THE LOS MOLECULE BY ADDING GALAC
                                                     EMBL; Z54182;
EMBL; U36398;
                                       InterPro;
                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-RM 7004 / S
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01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
                                                                                                                                                                                                                                                                                                            NCBI_TaxID-727;
                                                                                                                                                                                                                                                                                                                                   Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                  Haemophilus
                                                                                                                                                                                                                                                                                                                                                                       LIPOOLIGOSACCHARIDE
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EMBL; M95174; AAA58625.1;
PIR; A46279; A46279.
PIR; S29228; S29228.
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                                                                                                                                                                                GLYCOSYLTRANSFERASES.
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PF01755; LPS_glycvyl_T; 1.
ferase; Glycosyltransferase; Virulence.
NCE 266 AA; 311:1 MW; 0C68AE9BA249BD39
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"Vibrio cholerae produces a second enterotoxin, intestinal tight junctions.",
Proc. Natl. Acad. Sci. U.S.A. 88:5242-5246(1991)
-!- FUNCTION: INCREASES THE PERMEABILITY OF THE BY AFFECTING THE STRUCTURE OF INTERCELLULAR
                                                                                                                                                                                                                                                                                     MEDLINE=20406833; PubMed=10952301;
Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,
Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,
Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,
Ermolaeva M.D., Vanathevan J., Bass. S., Qin H., Dragoi I., Sellers P.,
McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O.,
McDonald S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,
                                                                                                                          Fasano A., Baudry B., Pu
Ketley J.M., Kaper J.B.;
                                                                                                                                                                      MEDLINE=91271365;
                                                                                                                                                                                            CHARACTERIZATION.
                                                                                                                                                                                                                                      Nature 406:477-483(2000).
                                                                                                                                                                                                                                                                    "DNA sequence of cholerae.";
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STRAIN=EL TOR 86015 /
Kan B., Liu Y.Q., Qi C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=EL TOR N16961
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Zhi-Yong H., Wei-Jie Z.,
"Cloning and Expression
"Clomitted (JAN-1999) to
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Submitted (J
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Bacteria; Proteobacteria;
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J. BIOL. Chem. 271:2271-2278(1996).

-I- CATALYTIC ACTIVITY: HYDROLYSIS OF PROTEIN AND PEPTIDE SUBSTRATES PREFERENTIALLY ON CARBOXYL SIDE OF HYDROPHOBIC RESIDUES.
-I- COFACTOR: BINDS ONE ZINC ION.
-I- SUBUNIT: HETEROTETRAMER OF TWO ALPHA AND TWO BETA SUBUNITS WHICH IS FORMED BY THE NON-COVALENT ASSOCIATION OF TWO DISULFIDE-LINKER HETERODIMERS.
                                                                                                                                                                                                                                                                                MEPB_MOUSE
Q61847;
Q1-NOV-1997
                                                                                                                                                                                                                                                            01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; M83563; AAA27582.1; -. EMBL; AF175708; AAD26854.1; -. EMBL; AF123049; AAD26854.1; -. EMBL; AF220606; AAF29547.1; -. EMBL; AE004224; AAF94615.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outsi the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con entities requires a license agreement (See http://www.isb-sib.ch/ar
                                                      "A novel meprin beta' mRN/carcinoma cells.";
J. Biol. Chart
                                                                                                                                   "Cloning, expression, and chromosomal meprin beta subunit.";
                                                                                                                                                                                                                                                                                                          MOUSE
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PIR; A43864; A4
TIGR; VC1458; -
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                                                                                       MEDLINE=96147211; PubMed=8567689;
                                                                                                  TISSUE-Kidney
                                                                                                                                                    Gorbea C.M., Marchand P.
Jenkins N.A., Bond J.S.;
                                                                                                                                                                     MEDLINE-94012651;
                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                    MEP1B OR MEP-1B.
Mus musculus (Mouse)
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an email to license@isb-sib.ch).
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Last annotation update)
PRECURSOR (EC 3.4.24.18)
                                                                                                                                                            P., Jiang
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          DISULFIDE-LINKED
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PROSITE; PS00142; ZINC_PROTEASE; 1

PROSITE; PS00740; MAM_1; 1.

PROSITE; PS00072; MAM_2; 1.

PROSITE; PS00072; EGF_1; FALSE_NEG
PROSITE; PS01186; EGF_2; FALSE_NEG
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InterPro; IPR000130; -.
InterPro; IPR000561; -.
InterPro; IPR000998; -.
InterPro; IPR001506; -.
InterPro; IPR002083; -.
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HSSP; P28825; 1IA
MEROPS; M12.002;
MEROPS; M12.004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There as a use by non-profit institutions as long as a modified and this statement is not removed. Use entitles requires a license agreement (See http or send an email to license@isb-sib.ch).
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Pfam; PF00008; EGF; 1.
Pfam; PF00629; MAM; 1.
Pfam; PF00917; MATH; 1.
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                                                                                                                                                                                                                                                                                                                                                                  Transmembrane;
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TISSUE SPECIFICITY: THE BETA-SUBUNIT IS EXPRESS INTESTINAL BRUSH BORDERS, AND SALIVARY DUCTS. THAS BEEN FOUND IN CARCINOMA CELLS.
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                                                                   This SWISS-PROT entry is copyright. It is produced through a chetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entitles requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                              TO THE PERTIDE OF ASPARAGINE-LINKED GLYCOPROTEINS. REQUIRES THAT THE GLYCOSYLATED ASPARAGINE-LINKED GLYCOPROTEINS. REQUIRES THAT THE GLYCOSYLATED ASPARAGINE MOIETY IS NOT SUBSTITUTED ON ITS AMINO (R1) AND TARBOXYL (R2) TERMINUS.

TO ATALYTIC ACTIVITY: N4-GBETA-N-ACETYL-D-GLUCOSAMINYL)-L-ASPARAGINE + H(2)0- N-ACETYL-BETA-GLUCOSAMINYLAMINE + L-ASPARTATE.

SUBGULT: HETERODIMER OF AN ALPHA AND A BETA CHAINS.
SUBCELLULAR LOCATION: PERIPLASMIC.
                                         EMBL; U08028; AAA68868.1.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Crystal structure of glycosylasparaginase from meningosepticum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xuan J., Tarentino A.L., Grimwood B.G., Guan C., van Roey P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X-RAY CRYSTALLOGRAPHY (2.32 ANGSTROMS).
MEDLINE-98200483; PubMed-9541410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tarentino A.L., Plummer T.H. Jr.;
"The first demonstration of a procaryotic glycosylasparaginase.";
Biochem. Biophys. Res. Commun. 197:179-186(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND PARTI
STRAIN-ELDER / ATCC 33958;
MEDLINE-95142655; PubM:d-784(
Tarentino A.L., Quinones G.,
Plummer T.H. Jr.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 46-59 AND 1.97-211 MEDLINE-94071939; Pubmed-8250
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
N4-(BETA-N-ACETYLGLUCOSAMINYL)-L-ASPARACINASE PRECURSOR (EC 3.5.1.26)
(GLYCOSYLASPARACINASE) (ASPARTYLGLUCOSAMINIDASE) (N4-(N-ACETYL-BETA-GLUCOSAMINYL)-L-ASPARACINE AMIDASE) (AGA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Flavobacterium meningosepticum.
Bacteria; CFB group; Flavobacteria; Flavobacteriaceae;
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               29-APR-98
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                                                                                          agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hauer C.R.,
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Pred. No. 52;
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RESULT 6
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"Deciphering the biology of Mycobacterium tuberculosis from the Complete genome sequence.";
L. Nature 393:537-544(1998).
"C -!- FUNCTION: CONVERSION OF NADPH, GENERATED BY PERIPHERAL CATABOLIC ENERGY GENERATION (BY SIMILARITY). - NADPH+ NADPH+) + NA
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Best Local
                                                                                                                   the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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007212;
01-0CT-2000 (Rel. 4
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                                                   TubercuList;
                                                             EMBL; Z96072; CAB09473.1;
HSSP; P11959; 1EBD.
                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last sequence update)
PROBABLE SOLUBLE PYRIDINE NUCLECTIDE TRANSHYDROGENASE
(STH) (NAD(P)(+) TRANSHYDROGENASE [B-SPECIFIC]).
STHA OR RV2713 OR MTCY05A6.34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Firmicutes; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; NCBI_TaxID=1773;
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                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: CYTOPIASMIC (I SIMILARITY: BELONGS TO THE PYRIDINE OXIDOREDUCTASES CLASS-I.
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Pred. No.
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BY SIMILARITY
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.c; 3D-structure.
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                                                                                                                                    http://www.isb-sib.ch/announce/
                                                                                                                                                          Usage
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InterPro; IPR000205; InterPro; IPR001100;

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L. J. Biol. Chem. 270:6698-6701(1995);

C. -I. FUNCTION: PROVIDES ADHESIVENESS TO THE MUSSEL'S FOOT. MUSSEL CLUE. THE PRODUCE ONE OF THE STRONGEST WATER INSOLUBLE GLUE. THE MUSSEL CLUES OF THE MUSSEL COATED WITH ADHESIVE PROTEINS.

C. -I. FUROUS COLLAGENOUS CORE COATED WITH ADHESIVE PROTEINS.

C. -I. SUBCELLULAR LOCATION: SECRETED.

C. -I. SUBCELLULAR LOCATION: SECRETED.

C. -I. DEVELOPMENTAL STAGE: EXPRESSION STARTS AT THE PEDIVELIGER, FORMATION, STAGE.

C. -I. POWN. STAGE.

C. -I. SUBCELLULARINES ARE HYDROXYLATED (THUS PRODUCING DOPA - DIMYDROXYPHENYLALANINE).
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Matches
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Interpro; IPR000561; -.
Pfam; PF000008; EGF; 11.
PROSITE; PS00010; ASX_HYDROXYI
PROSITE; PS00022; EGF_1; 11.
PROSITE; PS01186; EGF_2; 10.
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025464;
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ADHESIVE PLAV
(MGFP-2).
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NP_BIND 5
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SEQUENCE 468 AJ
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Eukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorphia;
Mytiloidea; Mytilidae; Mytilus.
MCBI_TaxID-29158;
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MEDLINE-95204464;
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FROM N.A.
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; Flavoprotein;
5 35 F.
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                                                                                                                                                                                                                                                                          ASX_HYDROXYL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=7896812;
1 Y., Miki D., Odo
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50754 MW;
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X PROTEIN 2 PRECURSOR (F
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Pred. No. 45;
0; Mismatches
       POTENTIAL.

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EGF-LIKE 2
EGF-LIKE 3
EGF-LIKE 4
EGF-LIKE 5
EGF-LIKE 5
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FAD (ADP PART) (BY SIMILARITY).
FAD (FLAVIN PART) (BY SIMILARITY).
; D9E737C41C2898CF CRC64;
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RESULT {
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Best Local S
Matches
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P54212;
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01-OCT-1996 (Rel. 34,
01-OCT-1996 (Rel. 34,
CARBONIC ANHYDRASE (
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SEQUENCE FROM N.A.
MEDLING=96279304; PubMed-8663366;
Fisher M., Gokhman I., Pick U., Zamir
"A salt-resistant plasma membrane carb
                                                                                  Dunaliella salina.
Eukaryota; Viridiplantae; (
Dunaliellaceae; Dunaliella
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34, Last sequence update)
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E (EC 4.2.1.1) (CARBONATE DEHYDRATASE).
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                                                                                                   Chlorophyta;
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EGF-LIKE 10.
EGF-LIKE 10.
EGF-LIKE 11.
DOPA.
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                                                                                                 Chlorophyceae; Volvocales;
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Best Local :
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Q43847;
Q43847;
Q1-NOV-1997 (Rel. 35, C:eated)
Q1-NOV-1997 (Rel. 35, List sequence update)
Q1-NOV-1997 (Rel. 38, List annotation update)
Q15-UUL-1999 (Rel. 38, List annotation update)
Q14-1999 (Rel. 38, List annotation update)
Q15-UUL-1999 (Rel. 38, List sequence update)
Q15-UUL-1999 (Rel. 38, List sequence update)
Q15-UUL-1999 (Rel. 35, List sequence update)
Q15-UUL-1999 (Rel. 35, List sequence update)
Q15-UUL-1997 (Rel. 35, List sequence update)
Q15-UUL-1997 (Rel. 35, List sequence update)
Q16-UVI-1997 (Rel. 35, List sequence update)
Q17-UUL-1997 (Rel. 35, List sequence update)
Q17-UUL-1997 (Rel. 35, List sequence update)
Q17-UUL-1997 (Rel. 35, List sequence update)
Q18-UVI-1997 (Rel. 36, List sequence update)
Q18-UVI-199
         between
the Euro
                                                     This
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SEQUENCE
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                                                                                                                                                                                                                                                                                                       synthase from potato tubers.";
Plant J. 8:283-294(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., AND SEQUENCE STRAIN=CV. DESIREE; TISSUE=Tuber; MEDLINE=95400340; PubMed=7670507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spe. Magnoliophyta; eudicoty.edons; core eudicots; Asteridae; Solanales; Solanaceae; Solanum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI the European Bioinformatics Institute. There are no restricuse by non-profit institutions as long as its content is
                                                                                                                                                                                                                                                                                                                                                                                           Edwards A., Marshall J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U53811; AAC49378.1; HSSP; P00918; 1CRA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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nes 6; Conserv
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                                                                                                                                                                             FUNCTION: ACCOUNTS FOR ONLY 10 TO 15% OF THE TOTAL SOLUBLE: SYNTHASE ACTIVITY IN TUBERS; CATALYTIC ACTIVITY: UDP-GLUCOSE + (1,4-ALPHA-D-GLUCOSYL)[N] UDP + (1,4-ALPHA-D-GLUCOSYL)[N+1]. PATHWAY: STARCH BIOSYNTHESIS.
                                                                                                  FAMILY.
                                                                                                                     SIMILARITY: BELONGS TO THE
                                                                                                                                                          SUBCELLULAR LOCATION: CHLOROPLAST/AMYLOPLAST, SOLUBLE AND GRANULE
                         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE EUKARYOTIC-TYPE CARBONIC ANHYDRASE FAMILY.
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         the Swiss Institut
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ilarity 75.0%;
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TISSUE=Tuber;
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         Institute.
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Pred. No. 55;
0; Mismatches
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ZINC (CAPALYTIC) (BY SIMILARITY).
ZINC (CATALYTIC) (BY SIMILARITY).
ZINC (CATALYTIC) (BY SIMILARITY).
; 0CC2A6F42C121171 CRC64;
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                                                                                                                BACTERIAL/PLANT GLYCOGEN SYNTHASE
                                                                                                                                                                                                                                                                                                                                                                                      C., Visser R.G.F.,
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Best Local S
Matches
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Ooi T., Arai M.;
"Cloning and sequencing of
Aspergillus aculeatus.";
Gene 173:287-288(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transit peptide; Chloroplast; A

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TRANSIT <1 65 CH

CHAIN 66 788 GL

BINDING 310 310 UD

VARIANT 71 71 S
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CARBOHYD
CARBOHYD
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P48825;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
BETA-GLUCOSIDASE 1 PRECURSOR (EC 3.2.1.21) (GENTIOBIASE)
(BETA-D-GLUCOSIDE GLUCOHYDROLASE).
                                                                           pfam; pf00933; Glyco_hydro_3; 1.
pfam; pf01915; Glyco_hydro_3_C;
pRINTS; pR00133; GLHYDRLASE3.
pROSITE; PS00775; GLYCOSYL_HYDRC
                                                                                                                                                                            modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASPAC
                                                     SIGNAL
                                                                Hydrolase;
                                                                                                                                                       EMBL; D64088; BAA10968.1;
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM STRAIN=F-50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes; Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus
                                                                                                                               InterPro; IPR002772;
                                                                                                                                           InterPro; IPR001764;
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-97082984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=5053;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aspergillus aculeatus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                 SIMILARITY: BELONGS TO FAMILY 3 OF
                                                                                                                                                                                                                                                                                              CATALYTIC ACTIVITY: HYDROLYSIS
GLUCOSE RESIDUES WITH RELEASE O
PATHWAY: CELLULOSE DEGRADATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 75.6; Conservative
                                                    Glycosidase;
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                                                                         GLYCOSYL_HYDROL_F3;
                                                                                                                                                                                                                                                                                                                                                                                                    PubMed=8964516;
  860
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                                                             Cellulose degradation; Glycoprotein;
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GLYCOGEN [STARCH] SYNTHASE.
UDP-GLUCOSE (BY SIMILARITY).
S -> D.
S -> D.
CRC64;
                         BETA-GLUCOSIDASE
BY SIMILARITY.
                                                  POTENTIAL.
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Amyloplast; Starch biosynt
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                                                                                                                                                                                                                                                                                                            OF BETA-D-GLUCOSE.
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No.
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(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                     Sumitani J.,
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71;
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HSSP; P07157; 1AIP.
InterPro; IPR000640; -.
InterPro; IPR000795; -.
Pfam; PF00679; EFG_C; 1.
Pfam; PF000099; GFP_EFTU; 1.
PROSITE; PS00301; EFACTOR_GTP; 1
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                   Elongation
NP_BIND
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                                                                                                                                                                                                                                                                          entities
or send a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nakamura Y., Hashimoto T., Yoshikawa H., Kamaishi T., Nakamura F., Okamoto K.I., Hasegawa M.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.
-I- FUNCTION: THIS PROTEIN PROMOTES THE GTP-DEPENDENT TRANSLOCATION OF THE MASCENT PROTEIN CHAIN FROM THE A-SITE TO THE P-SITE OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EF2_BLAHO
Q17152;
                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Exthe European Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                              modified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota;
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Blastocystis hominis
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01-NOV-1997 (Rel.
30-MAY-2000 (Rel.
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                                                                                                                                                                                                                                                                          s requires a license agreement (See http://www.isb-sib.ch/announce/
an email to license@isb-sib.ch).
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Similarity 71.4%;
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. 35, Last sequence up.
. 39, Last annotation 1
R 2 (EF+2).
GTP-binding; Protein blosynthesis, .....

3 GTP (BY SIMILARITY).

124 GTP (BY SIMILARITY).

179 GTP (BY SIMILARITY).

57 PHOSPHORYLATION (BY SIMILARITY).

59 PHOSPHORYLATION (BY SIMILARITY).

723 DIPHTAMIDE (BY SIMILARITY).
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ag; Protein biosynthesis; F
agre (BY SIMILARITY).

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).
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Best Local
Matches
                       pfam; pr00754; F5_F8_type_C; 1.
pfam; pr00069; pkinase; 1.
pr0SITE; ps00109; pr0TEIN_KINASE_TYR; 1.
pr0SITE; ps00239; RECEPTOR_TYR_KIN_II; 1.
pr0SITE; ps01286; F458C_1; 1.
pr0SITE; ps01286; F458C_2; 1.
pr0SITE; ps01286; F458C_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12
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Q63474;
Q1-NOV-1997
Q1-NOV-1997
Q1-OCT-2000
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01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
01-OCT-2000 (Rel. 40, Last annotation update)
EPITHELIAL DISCOIDIN DOMAIN RECEPTOR 1 PRECURSOR (EC 2.7.1.112)
(TYROSINE-PROTEIN KINASE CAK) (CELL ADHESION KINASE) (TYROSINE KINASE)
DDR) (DISCOIDIN RECEPTOR TYROSINE KINASE) (PROTEIN-TYROSINE KINASE
                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not remove entitles requires a license agreement (so or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DDR1 OR EDDR1 OR PTK3.
Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Eukheria; Rodentia;
                                                                                                                   InterPro; IPR000421; -.
InterPro; IPR000719; -.
InterPro; IPR001245; -.
InterPro; IPR002011; -.
                                                                                                                                                                          EMBL; L26525; AAA21089.1; HSSP; P11362; 1FGI.
                                                                                                                                                                                                                                                                                                                                                                                                                              Sanchez M.P., Tapley P., Saini S.S., He B., Pulido D., Barbacio Multiple tyrosine protein kinases in rat hippocampal neurons: isolation of Ptk-3, a receptor expressed in proliferative zone: the developing brain.";

Proc. Natl. Acad. Sci. U.S.A. 91:1819-1823(1994).

-i- FUNCTION: MAY BE INVOLVED IN CELL-CELL INTERACTIONS AND RECOGNITION (BY SIMILARITY).

-i- CATALYTIC ACTIVITY: ATP + A PROTEIN TYROSINE - ADP + PROTEIN TYROSINE PHOSPHATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10116;
[1]
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               Fransferase;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                            SUBCELULAR LOCATION: TYPE I MEMBRANE PROTEIN TISSUE SPECIFICITY: VARIOUS EMBRYONIC AND PROLIFERATIVE ZONES OF THE DEVELOPING BRAIN; SIMILARITY: WITH THE CONSERVED CATALYTIC DOME
                                                                                                                                                                                                                                                                    European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                     SIMILARITY: CONTAINS SIMILARITY: BELONGS T
                                                                                                                                                                                                                                                                                                                         PROTEIN KINASES.
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                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced the een the Swiss Institute of Bioinformatics and to European Bioinformatics Institute. There are no
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4173920; PubMed-8127887; P., Tapley P., Saini S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           867
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0011; PROTEIN_KINASE_DOM; 1.
Tyrosine-protein kinase; Glycoprotein; S
ion; Transmembrane; Receptor; ATP-binding
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                                                                                                                                                                                                                             license agreement (See http://www.isb-sib.
                                                                                                                                                                                                                                          institutions as long attement is not removed.
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Pred. No.
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                      INSULIN
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IN; HIPPOCAMPAL NEURON:
DOMAINS OF TYR-PROTEIN
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(TYROSINE ĶINASE
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NEURONS
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RESULT
DDR1_MC
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Best Local S
Matches 6
                               Gilardi-Hebenstreit P., Nieto M.A., Frain M., Matte Chestier A., Wilkinson D.G., Charnay P.;
"An Eph-related receptor protein tyrosine kinase ge expressed in the developing mouse hindbrain.";
Oncogene 7:2499-2506(1952).

Oncogene 7:2499-2506(1952).

FUNCTION: MAY BE INVOLVED IN CELL-CELL INTERACT RECOGNITION (BY SIMILARITY).

OCATALYTIC ACTIVITY: ATP + A PROTEIN TYROSINE - PROTEIN TYROSINE PHOSPHATE.
                                                                                                                                                                               SEQUENCE OF 766-822 FROM N.A.
STRAIN-C57BL; TISSUE-Embryonic brain;
MEDLINE-93096484; PubMed-1281307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-1994 (Rel. 30, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
01-OCT-2000 (Rel. 40, Last annotation update)
EPITHELIAL DISCOIDIN DOWAIN RECEPTOR 1 PRECURSOR (EC 2.7.1.112)
(TYROSINE-PROTEIN KINASE CAK) (CELL ADHESION KINASE) (TYROSINE KINASE
DDR)_(DISCOIDIN RECEPTOR TYROSINE KINASE) (PROTEIN-TYROSINE KINASE
                                                                                                                                                                                                                                                     Perez J.L., Jing S.Q., Wong T.W.; "Identification of two !soforms of the coexpressed in breast tumor cell lines. Oncogene 12:1469-1477(1996).
                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                            STRAIN-C57BL;
MEDLINE-96204002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOUSE
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F5/8 TYPE C
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Pred. No.
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Sciurognathi;
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EPITHELIAL DISCOIDIN DOMAIN RECEPTOR 1.

EXTRACELLULAR (POTENTIAL).
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Score 34; Pred. No.

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InterPro; IPR000421;
InterPro; IPR000719;
InterPro; IPR000719;
InterPro; IPR002011;
InterPro; IPR002011;
InterPro; IPR002011;
InterPro; IPR002011;
InterPro; IPR002011;
InterPro; IPR000754; F5_F8_type_C; 1.

Pfam; PF00069; Pkinase; 1.
PROSITE; PS00107; PROTEIN_KINASE_ATP; FALSE.
PROSITE; PS00109; PROTEIN_KINASE_DOM; 1.
PROSITE; PS001239; RECEPTOR_TYR_KIN_II; 1.
PROSITE; PS01285; FAS8C_1; 1.
PROSITE; PS01285; FAS8C_2; 1.
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-!- TISSUE SPECIFICITY: THE PREDOMINANT ISOFORM CAK I, IS E DEVELOPING EMBRYO AND ADULT BRAIN; CAK II IS EXPRESSED EPITHELIAL CELLS.

-!- SIMILARITY: WITH THE CONSERVED CATALYTIC DOMAINS OF TYPE KINASES.
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EPITHELIAL DISCOIDIN DOMAIN RECEPTOR
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008345; Q14196; Q16562;

01-FEB-1995 (Rel. 31, Created)

01-NOV-1997 (Rel. 35, Last sequence update)

01-OCT-2000 (Rel. 40, Last annotation update)

ceptthelial discoidin bomain receptor 1 precursor (EC 2.7.1.112)

(TYROSINE-PROTEIN KINASE CAK) (CELL ADHESION KINASE) (TYROSINE KINASE DDR) (DISCOIDIN RECEPTOR TYROSINE KINASE) (PROTEIN-TYROSINE
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                                                                                                                                               TISSUE-Brain, and Keratinocytes;
MEDLINE-94043265; PubMed-8226977;
MEDLINE-94043265; PubMed-8226977;
Molecular cloning of trkE, a novel trk-rel
Kinase receptor isolated from normal human
expressed by normal human tissues.";
J. Biol. Chem. 268:24290-24295(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "A receptor tyrosine kinase found in breast carcinoma extracellular discoidin I-like domain."; Proc. Natl. Acad. Sci. U.S.A. 90:5677-5681(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Fetal liver;

MEDLINE-94134417; PubMed-8302582;

MEDELINE-94134417; PubMed-8302582;

Perez J.L., Shen X., Finkernagel S., Sciorra L., Jenkins N.A.,

Perez J.L., Shen X., Finkernagel S., Sciorra L., Jenkins N.A.,

Gilbert D.J., Copeland N.G., Wong T.W.;

"Identification and chromosomal mapping of a receptor tyrosine kinase

"Identification and chromosomal mapping of a receptor tyrosine kinase

with a putative phosphoilpid binding sequence in its ectodomain.";

Oncogene 9:211-219(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                    Laval S., Butler R., Ganesan T.S.;
                                                                                                                                                                                                                                                                                                               Perez J.L., Jing S.Q., Wong T.W.;
"Identification of two isoforms of the coexpressed in breast tumor cell lines. Oncogene 12:1469-1477(1996).
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MEDLINE-97131588; PubMed-8977099;
MENTANA S., Tada M., Saya H., Sawamura
"Receptor protein tyrosine kinase DDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-93296201; PubMed-8390675; Johnson J.D., Edman J.C., Rutter W.
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"Isolation and c
tyrosine kinase
                                                                       MEDLINE-95151638;
                                                                                              TISSUE-Ovary;
                                                                                                              SEQUENCE FROM N.A.
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characterization
e from an ovarian
                                                      PubMed=7848919;
R., Shelling A.N
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of an epithelial-specific receptor cancer cell line.";
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                                                                                      the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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-!- FUNCTION: MAY BE INVOLVED IN CELL-CELL INTERACTIONS AND
                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of the Swiss Institute of Bioinformatics and the Electron of t
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L20817; AAC50917.1;
U48705; AAC50917.1;
X98208; CAA66871.1;
X99023; CAA66871.1;
X99025; CAA66871.1;
X99025; CAA66871.1;
X99027; CAA66871.1;
X99028; CAA66871.1;
X99029; CAA66871.1;
X99031; CAA66871.1;
X99031 P11362; PS01285; FA58C_1; PS01286; FA58C_2; ; IPR000421; ; IPR000719; ; IPR001245; ; IPR002011; e splicing.
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417 443
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31 185 IFGI. Transmembrane; JOINED POTENTIAL.

EPITHELIAL DISC

EXTRACELLULAR (
POTENTIAL. CYTOPLASMIC () F5/8 TYPE C () POTENTIAL). GLY/PRO-RICH. GLY/PRO-RICH. kinase; Glycoprotein; Signal;
e; Receptor; ATP-binding; DISCOIDIN DOMAIN (PHOSPHOLIPID-BINDING (POTENTIAL) RECEPTOR

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01-OCT-1989 (Rel. 12
15-JUL-1999 (Rel. 38
COLLAGEN ALPHA 1(I)
              SEQUENCE OF 1200-1205.

MEDLINE-72243016; PubMed-5047697;
Eyre D.R., Glincher M.J.;

"Evidence for a previoualy undete of the alpha 1 chain of chicken by
                                                                                                                                                                "Amino acid sequence of chick skin collage complete primary structure of the helical collagen alpha 1(1) chain."; Biochemistry 21:2048-2055(1982).
                                                                                                                                                                                                                                                                                   Kang A.H., Gross J.;
                                                                                                                                                                                                                                                                                                         Highberger J.H.,
                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 152-1187.
MEDLINE-82231995; Pub
                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-88007542; PubMed-2820966; Finer M.H., Aho S., Gerstenfeld L.C., "Unusual DNA sequences located within first intron of the chicken pro-alpha J. Biol. Chem. 262:13323-13332(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 1-153 FROM N.A.
MEDIIND-88056316; PubMed-3678834;
Finer M.H., Boedtker H., Doty P.;
"Construction and characterization of cDNA clones of the chicken pro alpha 1(I) collagen mRNA.";
Gene 56:71-78(1987).
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Eukaryota; Metazoa; Chordata; (
Archosauria; Aves; Neognathae;
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nce for a previously undetected sequence at the carboxyterminus alpha 1 chain of chicken bone collagen.";
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Corbett C., Dixit
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12, Last sequence update)
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Neognathae; Galliformes; Phasianidae; Phasianinae;
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the promoter region a
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PIR; A29367; A29367;

InterPro; IPR000087; -.

InterPro; IPR000085; -.

InterPro; IPR001007; -.

Pfam; PF01410; COLFI; 1.

Pfam; PF01391; Collagen; 18.

Pfam; PF00093; vwc; 1.

PROSITE; PS01208; WWFC; 1.

Extracellular matrix; Connect
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EMBL; M17838; AAA48704.1; J
EMBL; W00401; CAA23695.1; -
EMBL; M10571; AAA48671.1; A
EMBL; M17607; AAA48672.1; -
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"Nucleotide sequence of a collagen cDNA-fragment coding for the carboxyl end of pro alpha 1(I)-chains.";
FEBS Lett. 111:61-65(1980)
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[5]
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Sequence determination and analysis of the 3' region of chicken alpha 1(I) and pro-alpha 2(I) collagen messenger ribonucleic actincluding the carboxy-terminal propeptide sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=80134546; PubMed=6987088;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochemistry 20:996-1006(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 981-1453 FROM N.A. MEDLINE-81160715; PubMed-69278 Fuller F., Boedtker H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HYDROXYADATITE.

PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS. SIMILARITY: CONTAINS 1 VMFC DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S Lett. 111:61-65(1980).

FUNCTION: TYPE I COLLAGEN IS A MEMBER OF GROUP I COLLAGEN (FIBRILLAR FORMING COLLAGEN).

SUBUNIT: TRIMERS OF ONE ALPHA 2(I) AND TWO ALPHA 1(I) CHAIN TISSUE SPECIFICITY: FORMS THE FIBRILS OF TENDON, LIGAMENTS BONES. IN BONES THE FIBRILS ARE MINERALIZED WITH CALCIUM
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in; Collagen;
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85.7%;
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                                                             HYDROXYLATION (POTENTIAL).
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HYDROXYLATION (POTENTIAL).
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HYDROXYLATION (POTENTIAL).
HYDROXYLATION (ONLY 3-HYDROXYPRO AND THE ONLY HYDROXYLATED PRO IN POSITION X (IN THE G-X-Y UNIT IN THE ALPHA 1(I) CHAIN)).
F -> L (IN REF. 5).
Q -> H (IN REF. 6).
9 MW; 3BC6152134271F4D CRC64;
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                                                                    Q ->
MW; 3
                                Score 34;
                                                                                                                                                                                                                               AMINO-TERMINAL PROPEPTIDE COLLAGEN ALPHA 1(I) CHAIN C-TERMINAL PROPEPTIDE.
                                                                                                                                                                                                    PYRROLIDONE CARBOXYLIC
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                                DB 1;
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Search completed: June 13, 2001, 14:21:46 Job time: $806\ sec$

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Title:
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2: sp_bacteria
3: sp_fungi:*
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Q9LZU6
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Q02529 oryxias lat
Q14964 homo sapien
Q68405 human cytom
Q91zu6 arabidopsis
Q11308 molluscum c
Q98187 molluscum c
Q98187 molluscum c
Q90330 coturnix co
Q91288 pleurodeles
Q90413 brachydanio
Q80102 bacteriopha
Q9ve06 drosophila
Q9yla8 drosophila
Q918f5 vibrio mimi
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09jjsi mus musculu
09qyv1 rattus norv
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Q91BG7	Q19350	Q62040	Q91718	Q14047	035407	Q9QW58	Q00903	Q9MAC8	Q9LMY1	Q9SPH5	048899	005459	Q60154	007212	049610	Q9PCV9	Q22208	077753	Q99227	Q9UDL2	Q9UD35	065500	026284	Q9L7Q6	Q9R3V6
Q91bg7 xenopus lae	Q19350 caenorhabdi	Q62040 mus musculu	Q91718 xenopus lae	homo	mus	Q9qw58 mus sp. mot	Q00903 gaeumannomy		Q9lmy1 arabidopsis	manihot e	O48899 zea mays (m			O07212 mycobacteri	$^{\circ}$	Q9pcv9 xylella fas	Q22208 caenorhabdi	canis	Q99227 homo sapien	Q9udl2 homo sapien	Q9ud35 homo sapien	O65500 arabidopsis	O26284 methanobact	7q6 vibrio	Q9r3v6 vibrio chol

ALIGNMENTS

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RESULT
Q9PK45
ID Q9
AC Q9
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Best Local Similarity
"hes 7; Conserv?
 Q9PK45;
Q9PK45;
01-OCT-2000
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01-OCT-2000
                                                                                                                                                                                                                                     "Genome sequence of an obligate intracellular pathogen of humans: Chlamydia trachomatis.";
Science 282:754-759(1998).
EMBL; AE001308; AAC67944.1; -.
SEQUENCE 196 AA; 21978 MW; E0B6CFFD52F93073 CRC64;
                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-D/UW-3/CX;
STRAIN-D/UW-3/CX;
MEDLINE-99000809; PubMed-9784136;
Stephens R.S., Kalman S., Lammel C.
Stephens R.S., Kalman S., Lammel C.
Mitchell W.P., Olinger L., Tatusov
                                                                                                                                                                                                                                                                                                                                                                                               Chlamydia trachomatis.
Bacteria; Chlamydiales;
NCBI_TaxID=813;
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01-NOV-1998 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
MAF-TYPE PROTEIN.
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Mus musculus (Mouse).
Mus musculus (Mouse).
Theria; Metazoa; Chordata; (
Theria; Rodentia;
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Read T.D., Brunham R., Shen C., Glll S.R., Heidelberg J.F., White Hickey E.K., Peterson J., Umayam L.A., Utterback T., Berry K., Bass S., Linher K., Weldman J., Khouri H., Craven B., Bowman C., Dodson R., Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Salzberg S.L., Elsen J., Fraser C.M.;

Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AB002331; AAF39457.1; -.
                                                                                                  SEQUENCE
                                                                                                                                                                       Eib D.W., Holling T.M., Zwijsen A., Dewulf N., de Groot E., van den Eijnden van Raalj A.J.M., Huylebroeck D., Martens G. "Expression of the follistatin/EGF-containing transmembrane M7365 (tomoregulin-1) during mouse development."; Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                         01-OCT-2000 (Tremblrel.
01-OCT-2000 (Tremblrel.
01-OCT-2000 (Tremblrel.
TOMOREGULIN-1 PRECURSOR
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MEDLINE-20150255; PubMed-10684935;
MEDLINE-20150255; PubMed-10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg
White O., Hickey E.K., Peterson J., Utterback T., Berry
Linher K., Weidman J., Khouri H., Craven B., Bowman C.,
Linher K., Weidman J., Beby R., Kolonay J., McClarty G.,
Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G.,
Eisen J., Fraser C.M.;
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Bacteria; Chlamydiales;
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K., Bass
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Q13086;
Q13086;
Q1-NOV-1996;
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01-MAY-2000
01-MAY-2000
01-OCT-2000
                                                                        PRINTS; PR00290; KAZALINHBTR PROSITE; PS00022; EGF_1; UNKI PROSITE; PS01186; EGF_2; 1.
                                                                                                                                                                                                            Eib D.W., Martens G.J.;
Submitted (APR-1995) to t
EMBL; U19878; AAA64622.1;
HSSP; P00998; 1TGS.
                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (Tremblrel. 01, Crea 01-NOV-1996 (Tremblrel. 01, Last 01-CCT-2000 (Tremblrel. 15, Last TRANSMEMBRANE PROTEIN PRECURSOR.
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Mammalia; Eutheria;
NCBI_TaxID=10116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78
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                                                        Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baehr M.;
 40
331
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Da; Chordata;
ia; Rodentia;
   39
380
351
                                                                                                                                                                                                                                                                                                                                                               Chordata;
Primates;
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75.0%;
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                                                                          UNKNOWN_1.
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Last
POTENTIAL.
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POTENTIAL.
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Pred. No.
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                 Oryzias latipes (Medaka fish).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleos Eukaryota; Meopterygii; Teleostei; Euteleostei; Neotele Actinopterygii; Acanthopterygii; Percomorpha; Acherinomorpha; Beloniformes; Adrianichthyidae; Oryziinae; Oryzias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "(Analysis of fibroblast growth factor receptor genes expressed retinal pigment epithelium of chick embryos by reverse transcrip polymerase chain reaction].";
J. Jpn. Ophthalmol. Soc. 98:625-629(1994).
HSSP, P1291; lFMK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY 2000 (TrEMBLrel. 13, Created)
01-MAY 2000 (TrEMBLrel. 13, Last sequence update)
01-OCT 2000 (TrEMBLrel. 15, Last annotation update)
FIBROBLAST GROWTH FACTOR RECEPTOR CPE-FGFR.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
FIBROBLAST GROWTH FACTOR RECEPTOR (EC 2.7.1.112) (FGF-R)
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PRINTS; PR00109; TYRRINASE.
PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
SEQUENCE 138 AA; 16109 MW; 74465170F678AE58 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE-94346318; PubMed-8067293;
                                                                             "Identification of four
                                                                                                                                              SEQUENCE FROM N.A. MEDLINE-93093167;
                                                                                                                                                                                                                                                              NCBI_TaxID=8090;
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6; Conser
   314:176-178(1992)
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                                                                                                                                                      PubMed=1459248;
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85.7%;
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Pred. No. 22;
1; Mismatches
                                                                             receptor
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                                                                             in Medaka fish (Oryzias
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Q14964;
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ACT_SITE
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EMBL; X99962; CAA68227.1; -.
EMBL; X99963; CAA68227.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1)----
Homo sapiens (Human).
Homo sapiens (Human).
Homo sapiens (Homan).
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01-NOV-1996 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
RAB-RELATED GTP-BINDING
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PIR; S27022; S27022.
HSSP; P12931; 1FMK.
                                                                                                                                                                                                                                                                PFAM; PF00071;
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                                                                                                                                                                                                                                                                                     INTERPRO;
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58 GYCTQDG
182 GEICIQDG
                                      1 GGVCVQDG
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PS00109; PROTEIN_KINASE_TYR; 1.
PS50011; PROTEIN_KINASE_DOM; 1.
TYrosine-protein_kinase; ATP-binding;
Ylation; Growth factor binding.
                                                                                                                                                                                                                                                                                 IPR001806; -.
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217 Þ
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163
172
                                                                                Conservative
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189
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15, Last annotation update)
PROTEIN (FRAGMENT).
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ATP (BY SIMILARITY).
PHOSPHORYLATION (AUTO-)
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Catarrhini;
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i; Hominidae;
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01-0CT-2000
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01-NOV-1996
                                                                                                                                          EU Arabidopsis sequencing project; submitted (APR-2000) to the EMBL/GenBank/DDBJ EMBL; AL162459; CAB82808.1;
                                                                                                                                                                                                                              Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Trachec
Magnoliophyta; eudicotyledons; core eudicots;
Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                          Cha T.A., Tom E., Kemble G.W., Duke G.M., "Human cytomegalovirus clinical isolates c found in laboratory strains.";
J. Virol. 70:78-83(1996).
EMBL; U33331; AAA85892.1; -..
SEQUENCE 336 AA; 35116 MW; 9F865E5019F
                                                                                                                                                                                           Jordan
Rudd S.
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01-0CT-2000 (TremBLrel.
01-0CT-2000 (TremBLrel.
HYPOTHETICAL 71.7 KDA P.
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NCBI_TaxID=10359;
                                                                                                                            Hypothetical protein.
SEQUENCE 633 AA; 71695
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Viruses; dsDNA viruses,
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Cytomegalovirus.
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01-MAY-2000
                                                   Moss B.;
Submitted
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ datemBL; U60315; AAC55146.1; -.
INTERPRO; IPRO02221; -.
PROSITE; PS00317; 4_DISULFIDE_CORE; UNKNOWN_1.
SEQUENCE 680 AA; 72398 MW; 12CB3BD9E61AA72B
                                                                                                                                                                                                                                                                                                                            Q98187
Q98187;
                                                                          SEQUENCE FROM N. Senkevich T.G.,
                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=96325459; PubMed=8670425;
Senkevich T.G., Bugert J.J., Sisler J.R.,
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Lopez-Estebaranz J.L., Collado M., Pavon M., Martin-Gallardo
Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; U86894; AAB57938.1; -
INTERPRO; IPR002221; -
PROSITE; PS00317; 4_DISULFIDE_CORE; UNKNOWN_1.
SEQUENCE 640 AA; 68996 MW; 23752F0B08B49BEA CRC64;
                                                                                                               "Genome sequence of a human tumorigenic specific host response-evasion genes."; Science 273:813-816(1996).
                                                                                                                                                                                                                 Molluscipoxvirus NCBI_TaxID=10280;
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Viruses; dsDNA viruses,
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Martin-Gallardo A., Moratilla M., Fur
Varas A.J., Collado M., Valencia A.,
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01-MAY-2000 (TremBLrel.
SIMILAR TO VARIOLA C15L
B-M,N,L.8.
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, Martin-Gallardo
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INTERPRO; IPRO01245; ...
INTERPRO; IPRO03006; ...
PFAM; PF00047; 19; 2.
PFAM; PF00069; pkinase; 1.
PRINTS; PR00109; TYRKINASE.
  Amphibia; Batrachia; Pleurodeles.
NCBI_TaxID=8319;
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Marcelle C., Eichmann A., Halevy O.,
"Distinct developmental expression o
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Q90330;
                                                                 Pleurodeles waltlii (Iberian ribbed newt).
Eukaryota; Metazoa; Chordata; Craniata; Vertel
Amphibia; Batrachia; Caudata; Salamandroidea;
                                                                                                                             01.NOV-1996 (TIEMBLIE). 01, Create 01.NOV-1996 (TIEMBLIE). 01, Last s 01.NOV-2000 (TIEMBLIE). 13, Last a 19.NAY-2000 (TIEMBLIE). 13, Last a FIBROBLAST GROWTH FACTOR RECEPTOR.
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01.NOV-1996 (TrEMBLrel. 01, Last sequence update)
01.CCT-2000 (TrEMBLrel. 15, Last annotation update)
FIBROBLAST GROWTH FACTOR RECEPTOR PRECURSOR.
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Development 120:683-694(1994).
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Eukaryota; Metazoa; Chordata; Craniata; Vert
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EMBL; U23839; AAA96816.1; -.

HSSP; P08631; 1AD5

ZFIN; ZDB-GENE-980526-488; fgfr4.

INTERPRO; IPR000719; -.

INTERPRO; IPR003006; -.

INTERPRO; IPR003006; -.

PRAM; PF00069; pkinase; 1.

PRAM; PF00069; prinase; 1.

PRINTS; PR00109; TYRKINASE, ATP; 1.

PROSITE; PS00109; PROTEIN_KINASE_TYR; 1.

PROSITE; PS00109; PROTEIN_KINASE_TYR; 1.

PROSITE; PS0011; PROTEIN_KINASE_TYR; 1.

PROSITE; PS0011; PROTEIN_KINASE_TYR; 1.
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FIBROBLAST GROWTH FACTOR F
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PROSITE; PS001107; PROTEIN_KINASE_ATP; 1.
PROSITE; PS001109; PROTEIN_KINASE_DOM; 1.
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PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
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MEDITINE=93130775; PubMed=1483392;
MEDITINE=93130775; PubMed=1483392;
Shi D.L., Feige J.J., Riou J.F., Desimone D.W., B
"Differential expression and regulation of two di
growth factor receptors during early development
amphibian Pleurodeles waltl.";
Development 116:261-273(1992).
EMBL; X65059; CAA46192.1; **.
HSSP; P06239; 3LCK.
                                                                                                                                                                                                                                                MEDLINE=96172998; PubMed=8589434; Thisse B., Thisse C., Weston J.A.; "Novel FGF receptor (2-FGFR4) is dyn neurectoderm during early zebrafish
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Eukaryota; Metazoa; Chordata; Craniata; Verte
Actinopterygii; Neopterygii; Teleostei; Eutel
Cypriniformes; Cyprinidae; Rasborinae; Danio.
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Search completed: June 13, 2001, 14:20:34 Job time: 734 sec

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US-08-336-343A-17
US-08-336-343A-17
US-08-336-343A-18
US-08-941-445A-9
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US-08-94-94-14
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ZIP: 07068
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	Sequence 17, Appl	Sequence 17, Appl	Sequence 17, Appl	•	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 8, Appli	Sequence 8, Appli	Sequence 3, Appli	Sequence 8, Appli	Sequence 2, Appli	Sequence 16, Appl	Sequence 17, Appl	Sequence 7, Appli	Sequence 6, Appli	Sequence 1, Appli

ALIGNMENTS

Sequence 2, Application Patent No. 6074839 GENERAL INFORMATION: TELEFAX: 201-994-1744 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS FILING DATE: 08-MAR-1994 ATTORNEY/AGENT INFORMATION: NAME: FETTATO, Gregory D. REGISTRATION NUMBER: 36,134 REFERENCE/DOCKET NUMBER: 325800-465 TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS APPLICATION NUMBER: US/08/468,846 FILING DATE: 06-JUN-1995 CLASSIFICATION: 514 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/208,008 FILING DATE: 08-MAR-1994 SOFTWARE: Patentin Relicurent APPLICATION DATA: TITLE OF INVENTION: TRANSFORMING GROWTH FACTOR ALPHA NUMBER OF SEQUENCES: 15 CORRESPONDENCE ADDRESS: APPLICANT: Meissner, Paul APPLICANT: Fuldner, Rebecca APPLICANT: Fei-Wei, Ying APPLICANT: Adams, Mark STREET: 6 Becker | CITY: Roseland STATE: New Jersey TYPE: amino acid TOPOLOGY: linear 2, Application US/08468846 5, 6074839 380 amino acids 6 Becker Farm Road Patentin Release #1.0, Version #1.30 STUART & OLSTEIN protein BAIN, GILFILLAN, CECCHI

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RESULT 3
US-07-903-029-5
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US-07-903-029-4
                                                                                                                                                                     Sequence 5, Application US/07903029 Patent No. 5969097 GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/07/
FILING DATE: 19920623
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Bennett, Dennis A.
REGISTRATION NUMBER: 34,54
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DDS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
TIS / O7 / ON 1.029
                                                                TITLE OF INVENTION: Human Guanylin
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRES:
                                                                                                                        APPLICANT:
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REFERENCE/DOCKET NUMBER: 07-21(872)A
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)694-5402
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COUNTRY:
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87.5%;
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Pred. No. 17;
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                                                                                                                                                                                                                                                                                                                                     Indels
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TYPE: AMINO ACID TOPOLOGY: linear MOLECULE TYPE: peptide US-07-903-029-5
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APPLICANT: Spaete, Richard

APPLICANT: Cha, Tai-An

TITLE OF INVENTION: NOVEL HUMAN CYTOMEGALOVIRUS

NUMBER OF SEQUENCES: 27

CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 26, Application US/08414926A Patent No. 5721354
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: CSeir, Luann
REGISTRATION UNMER: 31,822
REFERENCE/DOCKET NUMBER: AVIF
TELEPHONE: 415-494-7622
TELEPHONE: 415-494-7622
TELEPAX: 415-857-0663
                                                                                            TELEFAX: 415-857-0663 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 115 amino acids
                                  SEQUENCE CHARACTERISTICS:
LENGTH: 336 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Bennett, Dennis A. REGISTRATION NUMBER: 34.547
REFERENCE, DOCKET NUMBER: 07
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)694-5402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/903,029
FILING DATE: 1920623
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
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                   TOPOLOGY:
                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/4 FILING DATE: March 31, 1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 5 Palo ACITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 GGVTVQDG 27
                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum STREET: 5 Palo Alto Square
                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity tes 7; Conserv
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OPERATING SYSTEM: PC-DOS/MS-DOS
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(317) TD NO: 5:
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Pred. No.
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; LOCATION: 1..336
; OTHER INFORMATION:
US-08-414-926A-26
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                                                                                                                     ; NAME/KEY: Protein
; LOCATION: 1..336
; OTHER INFORMATION:
US-08-926-922-26
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                                                               Query Match
Best Local Similarity
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Best Local :
                                                     Matches
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                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                         CLONE:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/926,9
FILING DATE: September 10, 1997
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: CSETT, LUADN 31 822
                                                                                                                                                                                                                   TOPOLOGY: 11 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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CLONE: tol.22
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les 6; Conserv
72 GGVCGEDG 79
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                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
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                         1 GGVCVQDG 8
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                                                    Conservative
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                                                                                                                                                                                                                               linear
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                                                               78.3%;
75.0%;
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75.0%;
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                                                   Score 36; DB Pred. No. 50; 1; Mismatches
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Pred. No. 50;
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Best Local Similarity
"hes 6; Conserv
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Patent INFORMATION:
                                                                                                                                                Sequence 8, Applic Patent No. 5882653
                                                                                               GENERAL INFORMATION:
APPLICANT: Kaper
APPLICANT: Levine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 510-839-7810
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                             APPLICANT: Kaper Dr., James B.
APPLICANT: Levine Dr., Myron M
TITLE OF INVENTION: Vibrio cho
TITLE OF INVENTION: (CVD112 an
TITLE OF INVENTION: of making
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: AV TELECOMMUNICATION INFORMATION: TELEPHONE: 510-834-1448
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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APPLICANT: Cha, Tai-
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: September 1:
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMEDIATE SOURCE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Cserr, Luann
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
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                                                                                                                                                                                                                                                                                  1 GGVCVQDG 8
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                                                                                                                                                             Application US/08624601
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                                                                                                                                                                                                                                                                                                                   Conservative
Spencer & Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         September 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
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                                             Vibrio cholerae O1 (CVD111) and non-O1 (CVD112 and CVD112RM) serogroup vaccine strains, methods of making same and products thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOVEL HUMAN CYTOMEGALOVIRUS
                                                                                                                                                                                                                                                                                                                                 78.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                  /label= UL151
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ber 10, 1997
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                                                                                                                                                                                                                                                                                                                 Score 36; DB Pred. No. 50; 1; Mismatches
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STREET: LIVE

1100 New York Ave. N.W. Suite 300 East

COUNTRY: U ZIP: 20005

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Query Match
Best Local Similarity
""tches 6; Conserv:
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                                                                                                                                                                                                                                                                                                                                                   Sequence 17, Application US/08336343A Patent No. 5677144 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (202)414-4040
INFORMATION FOR SEQ ID NC: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
TOPOLOGY: lir
MOLECULE TYPE:
                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 08-NOV-199
                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC:DOS/MS-DOS
                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                    APPLICANT: Ullrich, Axel APPLICANT: Alves, Frauke TITLE OF INVENTION: CCK-2, NUMBER OF SEQUENCES: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGINAL SOURCE:
ORGANISM: V1br1o che
STRAIN: El Tor 7946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291 GRLCVQDG 298
                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 08-APPLICATION: 42.
                                                                                                                                                                                                                     CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Schneller Dr., John W.
REGISTRATION NUMBER: 26,031
REFERENCE/DOCKET NUMBER: BAMCZ0019P2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Felease #1.0, Version #1.30
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10036-2711
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1155 Avenue of the Americas
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                                              US/08/336,343A
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                                                                                                                                                                                                                                                                                                A No. 5677144el Receptor Tyrosine Kinase
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Pred. No.
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US-08-336-343A-18
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; Sequence 18, Application US/08336343A
; Patent No. 5677144
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Best Local S
Matches 6
   Best Local Similarity 100 Matches 6; Conservative
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                   TOPOLOGY: un
                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/336,343A FILING DATE: 08 NOV-1994 CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                   TELEFAX: (212,
TELEFAX: 66141 PENNIE
TELEFAX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: New York COUNTRY: U.S.A. ZIP: 10036-2711
                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 30
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STATE: New Yor
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mes 6; Conserv
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(212) 869-9741/8864
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(212) 869-9741/8864
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               73.9%; Score 34;
100.0%; Pred. No.
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US-08-701-191A-25
                                                                                                                        Sequence 6, Application US/08836567 Patent No. 6130367
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Best Local s
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                                                                                                        GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 317 amino acid
                                                          APPLICANT:
APPLICANT:
APPLICANT:
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MEDIUM TYPE: 3.5" D1skette, 1.44 Mb
MEDIUM TYPE: storage
              TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: August: CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Moosa Mohammadi, Joseph Schlessinger, APPLICANT: and Stevan R. Hubbard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IITLE OF INVENTION: CRYSTALS OF THE TYROSINE KINASE DOMAIN ITLE OF INVENTION: OF NON-INSULIN RECEPTOR TYROSINE KINASE
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STREET: 633 West Fifth Street
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 22
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STATE: California
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Abel, Gernot
                                                                                           Kossmann, Jens
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N: 530
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100.0%; Pred. No
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INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TRANSGENIC
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Mismatches
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Best Local Similarity
Matches 6; Conser
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TELEFAX: 212-596-9090
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 558 amino acids
                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/941,445A
FILING DATE: 30-SEP-1997
                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                 APPLICANT: Keeling, Peter APPLICANT: Guan, Hanping TITLE OF INVENTION: Star
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FILING DATE: 09-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE P
FILING DATE: 10-NOV-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                             190 GGVCYGDG 197
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                     COUNTRY: UZIP: 80303
                                                                                                                                                                        STATE:
                                                                                                                                                                                      CITY: Boulder
                                                                                                                                                                                                     ADDRESSEE: Greenlee, Winner and Sullivan, STREET: 5370 Manhattan Circle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
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NUMBER: US/08/941,445A
30-SEP-1997
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24-JUL-1997
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Pred. No.
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Best Local Similarity /5.~
Conservative
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                             NEORMATION FOR SEQ ID NC: 8:
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TELEFAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                              PRIOR APPLICATION NUMBER: PCT/EP95/04415
FILING DATE: 09-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE P 44 41 408.0
FILING DATE: 10-NOV-1994
SEQUENCE CHARACTERISTICS: LENGTH: 767 amino acids
                                                                 TELEPHONE: 212-596-9000
                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DAMA:
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TELECOMMUNICATION INFORMATION:
                                                                                             NAME: Haley Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: Agrevo-4
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ITLE OF INVENTION:
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                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/836,567 FILING DATE: 24-JUL-1997 CLASSIFICATION: 800
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                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                   212-596-9090
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Abel, Gernot
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INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TR.
PLANT CELLS AND PLANTS CONTAINING SAID MOLECULES
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Pred. No. 2.1e+02
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                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence 4, Application US/08445640 Patent No. 5709858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/170
FILING DATE: 20-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/157
FILING DATE: 23-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28.61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 913 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94000
COMPUTER READABLE FORM:

MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PC DOS/MS-DOS
                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 85
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
689 GVCVQD 694
                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FITLE OF INVENTION: Protein Tyrosine Kinases
                                                                                                                                                                                                    TELEFAX: 415/--
TELEFAX: 415/--
TELEFAX: 910/371-7168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           399 GGVCYGDG 406
                                                                                                                                                                                                                                              TELEPHONE:
                           2 GVCVQD 7
                                                                                                                                          TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 460 Point San Bruno Blvd CITY: South San Francisco
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                                                                                                                                                                                                                                 415/952-9881
                                                      Conservative
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                                                                                                                                          linear
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Baron, Will F
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Mark, Melanie
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                                                                    73.9%;
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                                                                Score 34; DB 1; L; Pred. No. 2.9e+02;
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Pred. No. 2.4e+02;
0; Mismatches 2
                                                                             Length 913;
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RESULT

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Search completed: June 13, 2001, 14:16:35 Job time: 496 sec
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                                                                                                                                                                                                                                                                                    ; TOPOLOGY: linear US-08-170-558-4
                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk

MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PALIA (Genentech)

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/170,558

FILING DATE: 20-DEC-1993

CLASSIFICATION UDBER: 08/157563

FILING DATE: 23-NOV-1993

ATTORNEY/AGENT INFORMATION:

NAME: Hasak, Janet E.

REGISTRATION NUMBER: 28,616

REFERENCE/DOCKET NUMBER: 854C1

TELECHONE: 415/252-1896

TELECHONE: 415/252-1896

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:
LENCTH: 913 amino acids

TYPE: amino acids

TYPE: amino acids

TYPE: amino acids
                                                                                                                                                                         Query Match 73.9
Best Local Similarity 100.
Matches 6; Conservative
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Patent No. 6001621
GENERAL INFORMATION:
APPLICANT: Godowski, Paul J.
APPLICANT: Mark, Melanie R.
                                                                                                  2 GVCVQD 7
||||||
689 GVCVQD 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Baron, Will F.
TITLE OF INVENTION: Protein Tyrosine Kinases
NUMBER OF SEQUENCES: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94080
R PF
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Mark, Melanie R.
Scadden, David T.
Baker, Kevin P.
Baron, Will F.
                                                                                                                                                                               73.9%; Score 34; DB 3;
100.0%; Pred. No. 2.9e+1
tive 0; Mismatches
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Minimum DB
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Perfect score:
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Gapop 10.0 ,
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Listing first 45 summaries
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/SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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38	39	39	39	39	42	42	42	42	42	42	Score	
90.5	92.9	92.9	92.9	92.9	100.0	100.0	100.0	100.0	100.0	100.0	Match	Query
118	124	118	98	8	25	25	20	20	8	6 0	Match Length DB	
16	19	16	21	21	15	15	21	20	21	21	:	
R66314	W80816	R66331	B40074	Y79123	R52793	R52775	Y79133	W94489	Y79119	Y84661	ID	
' Human 1mmunoglobul	Amino acid sequenc	Human immunoglobul	Anti-hIL12 antibod	Peptide antagonist	Murine BrE-3 immun	Murine BrE-3 immun	Human foetal intes	Human foetal intes	Peptide antagonist	Peptide antagnonis	Description	

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:	Y64735	Y64925	Y64774	R76969	P61028	W00242	Y68811	R87049	W16581	Y79130	W94487	W68169	R82833	W73953	88098W	W86076	W86096	Y79127	B07654	P40032	P80156	P80155	Y15408	Y15409	Y15401	B53648	Y84660	W68167	Y79117	R54811	W00240	-	Y32832	W69322
	EST	Human 5' EST relat	Human 5' EST relat	HSV-neutralising a	H-chain variable r		heavy	group	g	adult	adult hea	Human IgG heavy ch	erminal of C17	IgG heavy chain fr	from	Ø		Peptide antagonist	. Llama antibody fra	Gamma anti-carcino		\Box		anti-RF		⋾	3	scuPA/suP	ide antagoni	-reactive	O	body 15D3		15D3 antibody heav

ALIGNMENTS

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RESULT
Y84661
                          Y84661;
                                                   Y84661 standard; Protein; 8
25-JUL-2000 (first entry)
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Peptide antagnonist FZI/0 of zonula occludens toxin (zot) polypeptide

Human; Zot; zonula occludens toxin; zonulin; antigen presenting cell; APC; lymphocyte proliferation; antigen; auto-immune disorder; immune-related disorder; immune system rejection; multiple sclerosis; organ transplantation; inflammatory disease; allergic disease; rheumatoid arthritis; insulin dependent diabetes mellitus; celiac disease; Sjogren's syndrome; systemic lupus erythematosus; auto-immune thyroiditis; idiopathic thrombocytopenic purpura; hemolytic anemia; Grave's disease; Addison disease; autolammune orchitis; pernicious anemia; vasculitis; autoimmune coagulopathy; polymyositis; myasthenia gravis; polyneuritis; pemphigus; rheumatic carditis; Dermatomyositis; scleroderma; asthma; psoriasis; eczematous dermatitis; Karposi's sarcoma; inflammatory bowel disease; proliferative disorder; PCR primer; ss. 14-SEP-1998; 09-SEP-1999; Synthetic 23-MAR-2000 WO200015252-A1 98US-0100266 99WO-US18842

(UYMA-) UNIV MARYLAND BALTIMORE

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RESULT
Y79119
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Best Local S
Matches 8
                                                                                                                                                                                                                                                                blood-brain barrier; antiinflammatory; cerebroprotective;
neuroprotective; dermarological; antiulcer; antiviral;
antibacterial; cytostamic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The method comprises administering to the host an effective amount of a 20t-related immunoregilator selected from 20t (zonula occludens toxin) zonulin, the amount effective to down-regulate the activity of the APC. The method can be used to down-regulate APC-mediated lymphocyte proliferation in mammalian hosts suffering from auto-immune or immune-related disorders, immune system rejection subsequent to tissue or organ transplantation, or inflammatory or allergic diseases. The auto-immune related disorders include multiple sclerosis, the auto-immune related disorders include multiple sclerosis, disease, Sjogren's syndrome, systemic lupus erythematosus, auto-immune thyroiditis, idiopathic thrombocytopenic purpura, hemolytic anemia, Grave's disease, Addison disease, Autoimmune orchitis, pernicious
17-FEB-2000
                                                                     WO200007609-A1
                                                                                                                                                                                                                gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or disorder is selected from asthma, psoriasis, eczematous dermati
Karposi's sarcoma, multiple sclerosis, inflammatory bowel disease,
proliferative disorders of smooth muscle cells, and inflammatory
conditions associated with mycotic, viral, parasitic, or bacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      anemia, vasculitis, autoimmune coagulopathies, myasthenia gravis, polyneuritis, pemphigus, rheumatic carditis, polymyositis, bermatomyositis, and scleroderma. The inflammatory or allergic disease
                                                                                                                                                                                                     hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflanmation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                             Zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y79119 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide antagonist of conulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              479119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents a peptide antagonist of zonula occlude toxin (zot) polypeptide. The specification describes a method of suppressing antigen presenting cell (APC)-mediated lymphocyte proliferation in a manmalian host pre-exposed to a particular antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 7; Page 59; 95pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subsequent
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8; Conser
                                                                                                                                                                                                                                                                                                                                                                                         antagonist;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                       zonula occludens toxin receptor; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ľ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 42;
Pred. No.
                                                                                                                                                                                                  therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tanner MK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to the host an effective amount of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; DB 21;
. 3.2e+05;
ches 0;
                                                                                                                                                                                                                                   vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of zonula occludens a method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     얁
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Location/Qualifier:

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                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C(TJ). The peptide antagonists are based on a common motif of 207 CC and human zonulins, which is believed to be critical for receptor CC binding. They can be prepared by chemical synthesis or by use of CC recombinant DNA techniques. The peptide antagonists are used as an CC inflammation, where they bind to the 207 receptor in the intestinal cCC inflammation, where they bind to the 207 receptor in the intestinal cCC inflammation, where they bind to the 207 receptor in the intestine CC and yet does not physiologically modulate the opening of TJ in the CC increased intestinal permeability and the peptide is useful for CC increased intestinal conditions that cause protein losing enteropathy CC caused by infection, e.g. Clostridium difficile infection, CC caused by infection, e.g. Clostridium difficile infection, CC caused by infection, e.g. Clostridium difficile infection, CC consead of infection, e.g. congenital overgrowth, whipple's disease with CC mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, CC collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangictasia, CC sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, CC coeliac disease, eosinophilic gastroenteritis, and immune diseases, CC e.g. systemic lupus erythematosus or food allergies, primarily to CC milk.
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                             Homo sapiens
                                                               Zonulin; mamma_____, ___, Vibrio cholerae; vaccine; vaccine;
                                                                                                                                          Human
                                                                                                                                                                           21-APR-1999
                                                                                                                                                                                                                W94489
                                                                                                                                                                                                                                            W94489 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    corresponding to residues 8-15 of human foetal intestinal z
It is one of 25 peptide antagonists (see Y79105-29) of the
that bind to a zonula occludens toxin (ZOT) receptor, yet d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       that bind to a zonula occludens toxin (ZOT) receptor, yet physiologically modulate the opening of mammalian tight ju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This present sequence is that of a peptide antagonist of zonulin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 45; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fasano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                           1 GGVLVQPG 8
                                                                                                                                                                                                                                                                                     w
                                                                                                                                                                                                                                                                                                                                      ggvlvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                             mammalian tight junction; zonula occludens
                                                                                                                                                                                                                                                                                                                                                                                                         100.
nilarity 100.
Conservative
                                                                                                                                  intestine zonulin N-terminal peptide.
                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US16683
                                                                 nasal mucosa;
                                                                                                                                                                                                                                                                                                                                                                                                                              .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                              .0%;
                                                                              cholera toxin; polyclonal
                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                       Score 42; DB 21;
Pred. No. 3.2e+05;
); Mismatches 0;
                                                               blood brain barrier
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                              antibody
                                                                                                toxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          do not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention
                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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RESULT
Y79133
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC physiological modulators of mammalian tight junctions. They can be used CC for enhancing the absorption of therapeutic agents across tight CC junctions of intestinal and nasal mucosa and across tight junctions of the blood brain barrier. Zonulin can be used with agents such as drugs, CC e.g. lidocaine, adenosine, dobutamine, dopamine, epinephrine, nalbuphine, correspinephrine, phentolamine, doxapram, alfentanil, dezocin, nalbuphine, CC mivacurium, succinyicholine, cytarabine, mitomycin doxorubicin, cytarabine, mitomycin doxorubicin, cytoristine, winblastine, methicillin, meziocillin, piperacillin, CC vincristine, vinblastine, methicillin, meziocillin, piperacillin, CC vincristine, nandrolene, menotropins, insulin, urofolltropin, cetoxittin, cefenicid, cefmetazole and aztreonam, a hormone e.g. CC (IL-1), IL-2, IL-4, IL-8, polyvalent IgG, specific IgG, IgA, or IgM. CC (IL-1), roteeins can also be used for the production of antibodies which can be used to assay for zonulin in body tissue or fluids, or in affinity-constitue of zonulin. The present sequence represents an N-terminal constitue of zonulin.
                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                  Matches
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              molecular weight of 47 kD, as determined by SDS-PAGE, which is recognised by both anti-tau polyclonal antibody and by anti-zonula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of agents across intestinal and nasal mucosa and blood brain barrier
                                gastrointestinal inflammation; therapy.
                                                 Zonulin; antagonist; zonula occludens toxin receptor;
human; blood-brain barrier; antiinflammatory;
                                                                                                                                  05-JUN-2000
                                                                                                                                                                                                Y79133 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              occludens toxin (20T) polyclonal antibody, and is capable of reopening mammalian tight junctions. Zonulin proteins function as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2; Page 45; 64pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-070123/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9852415-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                Human foetal intestine zonulin N-terminal sequence.
                                                                                                                                                                   Y79133;
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-NOV-1998
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                                                                                                                                                                                                                                                                             1 GGVLVQPG 8
|||||||
8 ggvlvqpg 15
                                                                                                                                                                                                                                                                                                                                                Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                             100.0%;
ilarity 100.0%;
Conservative
                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               describes pure zonulin which has an apparent
                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                             Score 42; DB 20 Pred. No. 0.28; 0; Mismatches
                                                                                                                                                                                                  ₹
                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reversibly
                                                                                                                                                                                                                                                                                                                                                Gaps
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В
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                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 8
                                                                                                                                                                     Immunoglobulin variable domain; primer; polymerase chain reaction;
chimeric antibody; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human intestinal zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Vibrio cholerae zonula occludens toxin (ZOT) to identify a common motif thought
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 3; Fig 6; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema castritio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
Misc-difference
                        28-SEP-1993;
                                   13-NOV-1992;
13-NOV-1992;
                                                                       15-NOV-1993;
                                                                                                26-MAY-1994
                                                                                                                      WO9411508-A.
                                                                                                                                               Mus musculus
                                                                                                                                                                                                          Murine BrE-3 immunoglobulin heavy chain variable domain N-terminus
                                                                                                                                                                                                                                   24-JAN-1995
                                                                                                                                                                                                                                                           R52775
                                                                                                                                                                                                                                                                                  R52775 standard; Protein; 25 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  barrier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is that of the N-terminal region of foetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fasano A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treatment of conditions associated with breakdown of the blood-brain
                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                           8 ggvlvqpg
                                                                                                                                                                                                                                                                                                                                                                     1 GGVLVQPG
                                                                                                                                                                                                                                                                                                           S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 AA;
                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                               15
                                                                                                                                                                                                                                                                                                                                                                       8
                       92US-0977706.
92US-0977707.
93US-0128015.
                                                                       93WO-US11316
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "unidentified residue"
                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 42;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                         0.28;
                                                                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                                                     21;
                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                     20;
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(CANC-) CANCER RES FUND CONTRA COSTA.

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RESULT
R52793
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                               16-NOV-1992;
30-SEP-1993;
08-OCT-1993;
Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62765-Q62769) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified 7-regions lacked constant regions so as to produce less immunogenit polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions.
                                                                                                                                    New analogue peptide(s) comprising antibody variable regions used to develop prods. For use in the detection, diagnosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. RS2774 and R52775). The general agreement between the predicted and the determined amino acid sequences that the cloned cDNAs encode BrE-3.
                                                                                                                                                                                     WPI; 1994-183510/22
                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murine
                                                                                          Example 12; Page 53; 54pp; English.
                                                                                                                                                                                                                 (CANC-) CANCER RES FUND CONTRA COSTA.
                                                                                                                                                                                                                                                                                                                                                                    W09411509-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                chimeric antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R52793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                        26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R52793 standard; Protein; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 11; Page 32; 54pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chimeric human-murine polypeptide(s) specific for human mammary fat globule antigen - for imaging, diagnosing and treating
                                                                                                                                                                                                                                                                                                         16-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                            Immunoglobulin variable domain; primer; polymerase chain reaction;
chimeric antibody; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62740-Q62744) were all
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neoplasia, with less undesirable immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGVLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               σ
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|ggvlvqpg 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BrE-3 immunoglobulin heavy chain variable domain N-terminus
                                                                                                                          and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25 AA;
                                                                                                                        plop prods. for use in the detection, diagnosis, prevention of neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                             92US-0977696.
93US-0123930.
93US-0134346.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 15;
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Best Local
                         and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for
                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occlidens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of 20T and human zonulins, which is believed to be critical for receptor
treating intestinal conditions that cause prote caused by infection, e.g. Clostridium difficile
                                                                                                                                                                                                                                                                          Claim 1; Page 47; 69pp; English.
                                                                                                                                                                                                                                                                                                           New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-205565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gastrointestinal inflammation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 blood-brain barrier; antiinflammatory; cerebroprotecti neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y79123 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. R52792 and R52793). The general agreement between the predicted and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    determined amino acid sequences that the cloned cDNAs encode \mathtt{BrE-3}.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity nes 8; Conser
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ain barrier;
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Pred. No. 0.3
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cerebroprotective;
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                protein losing enteropathy
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RESULT
B40074
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coellac disease, eosinophilic gastroenteritis, and immune diseases.
This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences B39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in B39517-B39560 and B40068-B40149. Sequences B39561-B39771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complementarity determining region; CDR; antirhe, antisclerotic; neuroprotective; antipsoriatic; artibacterial; immunosuppressive; multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, disea
                                                                                                                                                                                                                                                                                                                                                                                                                                                (BADI )
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                                                                                                                                                                      Claim
                                                                                                                                                                                                                                    treat
                                                                                                                                                                                                                                                        New human antibody specific
                                                                                                                                                                                                                                                                                                                                           Derbyshire
                                                                                                                                                                                                                                                                                                                                                             Kaymakcalan Z, Labkov:
Veldman GM, Venturini
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                                                                                                                                                                                                                                                                                                 2000-638250/61
                                                                                                                                                                    75; Page 121; 377pp; English
                                                                                                                                                                                                                               disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neutralising antibody; interleukin-12;
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7; Conserv
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GENETICS INST INC
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                                                                                                                                                                                                                                                                                                                                                                                                    Roguska M,
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                                                                                                                                                                                                                                                                                                                                           Carmen
                                                                                                                                                                                                                                                                                                                                                                                Labkovsky B,
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                                                                                                                                                                                                                                                                                                                                           Smith
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                                                                                                                                                                                                                                  for human interleukin-12 (IL-12) used to sd by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
                                                                                                                                                                                                                                                                                                                                       cind M, Banerjee S, Tracey DE
    Sakorafas P, Friedrich S, M
    Sakorafas P, Friedrich JG,
    Irne NW, Widom A, Elvin JG,
    ith S, Holtet TL, Du Fou SL;
                                                                                                                                                                                                                       , b
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mmunosuppressive; Crohn's disea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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No. 3.2e+05;
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Duncan AR;
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Best Local S
Matches
              Protein sequences (R66295-51) are novel human immunoglobulin heavy chain sequences encoded by novel isolated genes. The genes (Q78939-79002) were isolated and cloned from a series of cosmid constructs: Y20; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR amplification using primers Q78917-38. The genes are subdivided into 5 families of Vh genes. The fragments cover a region of 800 kb. The DNA fragments were isolated from high molecular weight DNA from human placenta. The DNA was partially digested with TaqI restriction enzyme. The fragments were separated by gel electophoresis and 35-45 kb fractions were collected. The fragments were ligated with ClaI-digested cosmid vector pJB81. The ligation products were in vitro packed and infected into E.coli 490A. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 represent anti-IL-12 CDR3 related amino acid sequences, B39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in B40064-B40067. Primers used in the identification and construction of the antibodys of the invention are given in C61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisclerotic; antinflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparastitic; antiparastic; antiparastic
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                                                                                                                                                                                                                                                                                                           Claim 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (NISB ) JAPAN TOBACCO INC
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placenta;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matsuda
                                                                                                                                                                                                                                                                                                        Page 85-87; 130pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                        of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amplify; huma
enta; vector;
                                                                                                                                                                                                                                                                                                                                                      comprising human immunoglobulin Vh f human immunoglobulin in mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93WO-JP00603
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein; 118
                                                                                                                                                                                                                                                                                                                                                    immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human; immunoglobulin;
tor; pJB81; E.coli; mamn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39; DB Pred. No. 4.9;
and infected into by colony hard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            heavy chain #37
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   variable;
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       E.coli 490A. 7
                                                                                                                                                                                                                                                                                                                                                        genes
hosts
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                                                                                                                                                                                                                                                                                                                                                                                   the
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hybridisation.

genes

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Best Local Similarity
Matches 7; Conser
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Best Local 9
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                                                                                                                                      This is the amino acid sequence of the human D7.2 heavy chain variable region, used in the method of the invention. For providing receptors that can be used for targeting antigens in humans without being immunogenic themselves. Such receptors can be used for treating diseases such as tumours or auto-immune diseases, graft rejection after transplantation; infectious diseases by targeting cellular receptors as well as allergic, inflammatory, endocrine and degenerative diseases by targeting key molecules involved in the
                                                                                                        Sequence
                                                                                                                                                                                                                                              Claim 9; Fig 8; 84pp; English.
                                                                                                                                                                                                                                                                                Production of anti-human antigen receptors - by combination of functionally rearranged VH and VL
                                                                                                                                                                                                                                                                                                                   WPI; 1998-594564/50
N-PSDB; V68538.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; D7.2 heavy chain variable region; receptor; antigen; tumour; auto-immune disease; graft rejection; allergy; inflammatory disease; endocrine disease; degenerative disease
                                                                                                                                                                                                                                                                     chains expressed from a recombinant vector
                                                                                                                                                                                                                                                                                                                                                     Kufer P,
                                                                                                                                                                                                                                                                                                                                                                                                             14-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                    14-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09846645-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the DNA fragments encoding them are useful in producing human immunoglobulin in mammallan hosts.
                                                                                                                             pathological process.
                                                                                                                                                                                                                                                                                                                                                                           (KUFE/) KUFER P. (RAUM/) RAUM T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Amino acid sequence
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1 GGVLVQPG 8
|||:||||
8 ggvvvqpg 15
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nes 7; Conserv
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ggvvvqpg 34
                                                                                                                                                                                                                                                                                                                                                     Raum T;
                                                                                                        124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118 AA;
                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-EP02180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of human D7.2 heavy chain variable region
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                                                           92
87
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                                                          Score
Pred.
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Pred. No.
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                                              Mismatches
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No.
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5.2;
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                                                                     Length 124;
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                                                                                                                                                                                                                                                                                selecting a immunoglobulin
                                               Indels
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                                               Gaps
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RESULT
W69322
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R6314
XX
R66314
XX
AC R66314
XX
DT 03-AUG
DT 03-AUG
XX
Primer
KW Primer
KW COsmid
XX
COsmid
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PN W09426
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PD 24-NOV
DX SX EXE
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XX
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                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                      sequences encoded by novel isolated genes. The genes (Q78939-79002) were isolated and cloned from a series of cosmid constructs: Y202; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR amplification using primers Q78917-38. The genes are subdivided into 5 families of Vh genes. The fragments cover a region of 800 kb. The DNA fragments were isolated from high molecular weight DNA from human placenta. The DNA was partially digested with Tag1 restriction enzyme. The fragments were separated by gel elecrophoresis and 35-45 kb fractions were collected. The fragments were invitro packed and infected into E.coli 490A. The fragments were then subcloned by colony hybridisation. The Vh genes and the DNA fragments encoding them are useful in producing human
                          19-NOV-1998
                                                                                 W69322 standard; Protein; 119 AA.
                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 31; Page 59-60; 130pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA fragment comprising human immunoglobulin Vh production of human immunoglobulin in mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Primer; PCR; amplify; human; immunoglobulin; variable; heavy chain;
cosmid; placenta; vector; pJB81; E.coli; mammalian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein sequences (R66295-51) are novel human immunoglobulin heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1995-006791/01.
N-PSDB; Q78960.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Honjo T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAY-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunoglobulin variable heavy chain #20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R66314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R66314 standard; Protein; 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (NISB ) JAPAN TOBACCO INC
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                                                                                                                                                                                                                                                                                                             immunoglobulin in mammalian hosts.
                                                                                                                                                       27
                                                                                                             12
                                                                                                                                                                    1 GGVLVQPG 8
                                                                                                                                                    ggalvqpg
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                                                                                                                                                                                                                                                                                   118 AA;
                                                                                                                                                                                                            Conservative
                          (first entry)
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                                                                                                                                                                                                                          90.5%;
                                                                                                                                                                                                            0;
                                                                                                                                                                                                                          Score 38; I
Pred. No. 8.
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                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                       DB
(9,
                                                                                                                                                                                                                                       16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes
hosts
                                                                                                                                                                                                                                       Length 118;
                                                                                                                                                                                                           Indels
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15D3 antibody heavy chain

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                                                                                                        Query Match
Best Local
                                                Matches
                                                                                                                            This sequence represents the VH chain of the antibody produced by hybridoma cell line 15D3. It is part of the nucleic acid of the invention which encodes a single-chain antibody molecule (scFv) comprising the heavy-chain complementarity-determining regions (CDRs) of the monoclonal antibody produced by hybridoma cell line 15D3, where the monoclonal antibody and scFv are capable of binding to multidrug-resistant (MDR) human tumour cells. The CDR sequences from both the heavy and light chains (HCDR1, HCDR2, HCDR3, LCDR1, LCDR2, and LCDR3) are all used in an expression cassette that can be used in a method for inducing the production of a polypeptide. The method is useful for producing recombinant scFv, which can be used for diagnosis or therapy (e.g. in the form of an immunotoxin) for MDR tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUN-1995;
29-OCT-1990;
22-OCT-1993;
17-OCT-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                              DNA encoding single-chain antibody molecule - specific for multidrug-resistant tumour cells, useful in diagnosis or therapy
                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-530873/45.
N-PSDB; V44997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US5811267-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hybridoma 15D3; 15D3 antibody; complementarity-determining region; scF single-chain antibody molecule; multidrug-resistant human tumour cell; MDR tumour; CDR; therapy; heavy chain.
                                                                                                        Sequence
                                                                                                                                                                                                                                                                                      Disclosure; Fig 1; 26pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                         (CHIR ) CHIRON
                       -
8
ggvlvrpg
                       GGVLVQPG 8
                                              Similarity 7; Conserv
                                                                                                        119
                                                Conservative
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90US-0605399.
93US-0141375.
94US-0323566.
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67..98
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36..49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note-
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                                                         90.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "HFR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "HFR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "HFR4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "HCDR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "HCDR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "HFR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "HCDR1"
                                                         Score 38;
Pred. No.
                                              Mismatches
                                                                      DB 19; Length 119;
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                                                Indels
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                                                Gaps
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RESULT Y32832

13

Qy.

1 GGVLVQPG 8 ggvlvrpg

Matches Query Match Best Local

Local

Similarity
7; Conserv

Conservative

90.5%;

Score 38; Pred. No.

0;

0,

Gaps

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Length 119; Indels

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15

14

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This sequence is the antibody 15D3 VH chain. The invention relates to isolated nucleic acid molecules comprising complementarity determining regions (CDRs) and framework regions (FRs) from humans and mice encoding a monomeric polypeptide that exhibits the immunological binding CC properties of an immunoglobulin which binds to a human tumour cell CC displaying the multiple drug resistance (MDR) phenotype. The recombinant nucleotide sequences can be used to transfect mammalian cells for the Expression of recombinant human antibodies which exhibit the antigen CC expression of recombinant human antibodies which exhibit the antigen CC can be used in specific binding assays, affinity purification schemes, drug or toxin targetting, imaging and genetic or immunological therapeutics for various cancers. The CDRs can be used in single chain Fv CC (seFv) molecules which can be used in the development of retroviral consist of the selective replacement of FR residues from a rodent light CC consist of the selective replacement of FR residues from a rodent light CC molecule comprising an antigen binding site which retains substantially CC all of the native FR polypeptide folding structure. The nucleic acids CC encode molecules with altered or enhanced antigen-binding capabilities CC and/or reduced immunogenicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUN-1995;
29-OCT-1990;
22-OCT-1993;
17-OCT-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acids encoding antibody binding sites of immunoglobulins with affinity for cancer antigens useful in cancer therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Complementarity determining region; CDR; framework region; FR; antibody; 15D3; immunoglobulin; human tumour cell; multiple drug resistance; MDR phenotype; cancer; retroviral vector development; gene therapy; murine antigen binding site.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 1; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-517953/43
N-PSDB; Z10957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ring
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Sequence
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 119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein sequence
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90US-0605399.
93US-0141375.
94US-0323566.
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29-OCT-1990;
22-OCT-1993;
17-OCT-1994;
 Key
                                                                                                                                                                                                                                                                                                                                                                           This sequence represents the heavy chain of the antibody produced by the hybridoma 15D3. The protein is an example of a monomeric polypeptide of the invention that binds to a human tumour cell displaying multiple drug resistance. The polypeptides are used in specific binding assays, affinity purification, drug or toxin targeting, imaging or immunotherapy of various cancers.
                                                                                                                                                     W00240;
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                                               Mouse-human chimeric antibody; monoclonal antibody; chMint5; epidermal growth factor receptor; EGF-R; diagnosis; therapy; immunotoxin; immunocytokine; tumour; cancer.
                                                                                                   EGF receptor chimeric MAb chMint5 VH chain.
                                                                                                                                                                                                                                                                                                                                                     Sequence
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                        Mus musculus.
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N-PSDB; V08933.
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                                                                                                                                                                                              The amino acid sequence (W00240) of the heavy chain variable region (VH) of the epidermal growth factor receptor (EGF-R)-specific mouse-human chimeric antibody chMint5 was deduced from a cDNA clone (T33445) obtd. by PCR amplification of murine Mint5 hybridoma DSM ACC2150 cDNA. chMint5 comprises Mint5 VH and VL regions fused to human C-gammal and CK regions. Constructs were expressed in CHO cell transfectants. chMint5 shows lower immunogenicity than Mint5 when administered to humans. It can be used in diagnostic assays or used to produce immunotoxins or immunocytokines useful
                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                               Murine/human chimeric monoclonal antibody, chMint5 specific for {\sf EGF-R} - shows a lower immunogenicity when administered to humans
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Ferrer Marsal C, Mele A;
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heavy	heavy		heavy	heavy	heavy chain	heavy	heavy	heavy	heavy	heavy	heavy	heavy	heavy chain	heavy	

ALIGNMENTS

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C.Species: Homo sapiens (man) C.Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 23-Jul-1999 C.Accession: S44111 R;Hawkins, R.E.; Zhu, D.; Ovecka, M.; Winter, G.; Hamblin, T.J.; Stevenson, F.K. submitted to the EMBL Data Library, March 1994 A;Description: Idiotypic vaccination against human B-cell lymphoma :rescue of variabl A;Recession: S44111 A;Accession: S44111 A;Cross-references: EMBL:231387; NID:9472965; PIDN:CAA83262.1; PID:9940522 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM> A;Status: preliminary A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-98 <TOM> A;Cross-references: EMBL:Z12335; NID:g32889; PIDN:CAA78205.1; PID:g32890 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM> C;Accession: S26929 R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G. J. Mol. Biol. 227, 776-798, 1992 A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups A;Reference number: S26885; MUID:93021117 A;Accession: S26929 A; Molecule type: DNA A; Residues: 1-120 <HAW> Ig heavy chain V region (DP-33) - human (fragment) C;Species: Homo sapiens (man) C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999 Ig heavy chain V-D-J region -1 GGVLVQPG |||:|||| 8 GGVVVQPG Local Similarity nes 7; Conserv Conservative 15 8 92.9%; human 1; Score 39; Pred. No. Mismatches В 2 0; Length 98 Indels 0, Gaps 0

92.9%;

Score 39; DB 2 Pred. No. 1.3; 1; Mismatches

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A; Experimental : C; Genetics: A; Gene: PA2394
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C; Superfamily: immunoglobulin V region;
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Proc. Natl. Acad. Sci. U.S.A. 71, 845-848, 1974
A;Title: Variable region sequences of five human immunoglobulin heavy chains of the V-H1
A;Reference number: A93794; MUID:74142702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V-III region (Zap) - human (tentative sequence)
C;Species: Homo sapiens (man)
C;Date: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change
C;Accession: A02061
                                     RESULT
                                                                                                                                                                                                                                                                                                                      A;Gene: GDB:IGHV@
A;Cross-references: GDB:128528; OMIM:147070
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C; Comment: This chain was isolated from
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R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig,
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A; Residues: 1-427 <STO>
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|Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
|Accession: D83347
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A; ACCESSION PROBLEM P
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A;Title: Genome sequence of the radioresist A;Reference number: A75250; MUID:20036896
A;Accession: H75301
                                                                                                                                                                                                                                                                                                                                                                                                                   R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, I
, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein - Deinococcus radiodurans (strain R1)
C;Species: Deinococcus radiodurans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 31-Mar-2000
C;Accession: H75301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:Z18824; NID:g33111; PIDN:CAA79276.1; PID:g939891 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM>
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C:Date: 12-Feb-1998 #sequence_revision 20-Feb-1998 #text_change 21-Jan-2000
C:Accession: S54854
R:Tomlinson, M.; Walter, G.; Cook, X.Y.Z.; Winter, G.
submitted to the EMBL Data Library, November 1992
A;Reference number: S54854
A;Accession: S54854
A;Accession: S54854
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-96 <TOM>
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
F;15-96/Domain: immunoglobulin homology <IMM>
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100.0%;
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                                               GB:AE000513; NID:g6460010; PIDN:AAF11766.1;
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, L.; Utterback, T.; Ze
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A; Map position:

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C; Superfamily: Escherichia coli methionyl aminopeptidase C; Keywords: alpha-aminoacylpeptide hydrolase
                                                                                                                    A; Molecule type: DNA
A; Residues: 2-264 <W
                                                                                                                                                                      A;Cross-references: GB:X55778; NID:g47818; PIDN:CAA39298.1; PID:g47819 R;Wingfield, P.; Graber, P.; Turcatti, G.; Movva, N.R.; Pelletier, M.; Eur. J. Biochem. 180, 23-32, 1989 A;Title: Purification and characterization of a methionine-specific ami A;Reference number: S03562; MUID:89210857 A;Accession: S03562
                                                                                                                                                                                                                                                                                                                                                 C:Accession: S12027; S03562
R:MOVVA, N.R.; Semon, D.; Meyer, C.; Kawashima, E.; Wingfield, P.; Miller, J.L.; Miller, Mol. Gen. Genet. 223, 345-348, 1990
A:Title: Cloning and nucleotide sequence of the Salmonella typhimurium pepM gene.
A:Reference number: S12027; MUID:91066851
A:Accession: S12027
                                                                                                                                                                                                                                                                                                                                                                                                                                                           N;Alternate names: peptidase M
C;Species: Salmonella typh.nurium
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 22-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Streptomyces coelicolor
C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 21-Jan-2000
C;Accession: T35032
                                                                                               A; Note: part of this sequence,
                                                                                                                                                        A; Status: nucleic
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A; Residues: 1-264 <MOV>
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A; Residues: 1-263 <SEE>
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A; Accession: T35032
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Best Local S
Matches 7
                                                                               Genetics:
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                        acid sequence not shown
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75.0%;
                                                                                             including the amino end of the mature protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 36; DB; Pred. No. 11; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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Pred.
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                                                                                                                                                                                                                 of a methionine-specific aminopeptidase from
#status experimental
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RESULT
S33402
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C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ig heavy chain V region (10-25) - mouse (fragment)
C;Specles: Mus musculus (house mouse)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change 30-May-1997
C;Accession: F31485
R;BedZyk, W.D.; Johnson, L.S.; Riordan, G.S.; Voss Jr., E.W.
J. Biol. Chem. 264, 1565-1569, 1989
A;Title: Comparison of variable region primary structures within an anti-fl.
A;Reference number: A31485; MUID:893109167
A;Accession: F31485
A;Status: preliminary
                                                        Ig heavy chain V region - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997
C;Accession: S33402; S36385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ig heavy chain V regions (3-24 and 5-14) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change 30-May-1997
C;Accession: D31485
R;Bedzyk, W.D.; Johnson, L.S.; Riordan, G.S.; Voss Jr., E.W.
J. Biol. Chem. 264, 1565-1569, 1989
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Best Local Similarity
watches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: protein
A; Residues: 1-32 <BED>
C; Superfamily: immunoglobuli
C; Keywords: heterotetramer;
                              R; Kettleborough, C.A.; Saldanha, J.; Ansell, Eur. J. Immunol. 23, 206-211, 1993
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A; Title: Optimization of primers A; Reference number: S33391; MUID:
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6; Conserv
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75.0%;
MUID: 93122092
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immunoglobulin
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Pred. No.
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Pred.
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35;
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               libraries of mouse
                                              K.H.; Bendig, M.M.
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             genes
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Ig heavy chain V region - mouse (fragment)
c;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C;Accession: S36381; S33396
R;Ansell, K.H.
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A:Reference number: S36376
A:Reference number: S36376
A:Rocession: S36385
A:Molecule type: mRNA
A:Residues: 1-30 <ANS>
A:Residues: 1-30 <ANS>
A:Cross-references: EMBL:X"3019
C:Superfamily: immunoglobulin v region: immunoglobulin homology
C:Keywords: heterotetramer; immunoglobulin
F:1-38/Domain: immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                                                                                                                          RESULT
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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A;Residues: 1-59 <CUR>
A;Cross-references: GB:M19706
A;Note: the authors translated the codon TCC for residue 28 as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Currier, S.J.; Gallarda, J.L.; Kn1ght, K.L.
J. Immunol. 140, 1651-1659, 1988
A;Title: Partial molecular genetic map of the rabbit V-H chromosomal region
A;Reference number: A27606; MUID:88154464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Species: Oryctolac
C; Date: 08-Mar-1989
C; Accession: A27606
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A:Molecule type: mRNA
A:Residues: 1-38 CKET'>
A:Cross-references: EMBL:X'3019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Experimental source: strain BALB/c R; Ansell, K.H.
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Best Local Similarity F/...
Thes 7; Conservative
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Best Local
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8 GGGLVQPG 15
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nes 7; Conser
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87.5%;
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Pred. No.
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3.9
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                   mouse immunoglobulin genes us:
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rch completed: June 13, time: 147 sec

2001, 14:10:46

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Query Match
Best Local Similarity
"-+~hes 7; Conserv
                                                                                                                                                                                  A;Molecule type: mRNA
A;Residues: 1-33 </EFT>
A;Cross references: EMBL:X73011
A;Cross references: EMBL:X73011
A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
E;8-60/Domain: immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-60 <ANS2
A;Cross references: EMBL:X73011; NID:g295878; PIDN:CAA51497.1; PID:g939940
A;Cross references: EMBL:X73011; NID:g295878; PIDN:CAA51497.1; PID:g939940
R;Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M.
Bur. J. Immunol. 23, 206-211, 1993
ByTitle: Optimization of primers for cloning libraries of mouse immunoglobulin genes
A;Reference number: S33391; MUID:93122092
A;Accession: S33397
    B
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A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 3-43 <KET>
A;Cross-references: EMBL:X73012
A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin V region; immunoglobulin hc
C;Keywords: heterotetramer; immunoglobulin
F;14-59/Domain: immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ly Heavy chain V region - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C:Accession: S36382; S33397
R:Ansen1
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1 GGGLVQPG 8
                                        1 GGVLVQPG 8
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                                                                                                   Score 35;
Pred. No.
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Pred. No. 3.9;
                                                                          Mismatches
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                                                                                                                     Length 60;
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Mis Pago Blank (USDL)

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Minimum DB
Maximum DB
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No.
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HSSP; P07906; 1MAT.
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Vrana M., Rudikoff S., Potter M.;
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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Proc. Natl. Acad. Sci. U.S.A. 77:3630-3634(1380).

-i- MISCELLANEOUS: THE SEQUENCE OF THE FIRST 197 RESIDUES OF THE CREGION WAS ALSO DETERMINED & DIFFERS IN ONLY 3 POSITIONS FROM THE CORRESPONDING PORTION OF THE MOUSE MOPC 104E MU CHAIN.
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Mammalia; Eutheria; Rodentia;
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RESULT 5 HV28_MOUSE

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HV28_MOUSE STAN P01797; 21-JUL-1986 (Rel. C 21-JUL-1986 (Rel. C 21-JUL-1999 (Rel. 3

STANDARD;

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GGGLVQPG

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                            Query Match
Best Local S
Matches 7
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Best Local S
Matches 7
                                                                                            PIR; C93818; AVMS09.
InterPro; IPR003006; -.
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
22 98
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InterPro; IPR00306; -
Pfam; PF00047; 1g; 1.
Immunoglobulin V region.
DISULFID 22 98 BY
NON_TER 113 113
SEQUENCE 113 AA; 12671 MW;
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NON_TER
SEQUENCE
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P01798;
                                                                                                                                                                                                                                                                                                                                    MOUSE
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Eukaryota; Metazoa; C
Mammalia; Eutheria; R
MCBI_TaxID=10090;
                                                                                                                                                      proteins.";
Proc. Natl. Acad. Sci. U.S.A.
-1- MISCELLANEOUS: THIS CHAIN
                                                                                                                                                                                  MEDLINE=78158406; PubMed=417344;
Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains
                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; MCBI_TaxID=10090;
                                                                                                                                                                                                                                                                         21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION E109.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteins
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION U61.
                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                Mus musculus (Mouse).
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GGVLVQPG
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                                     Similarity
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113 AA;
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Rodentia;
                                   83.3%;
87.5%;
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87.5%;
                                                                            MW;
                           Pred. No. 3.6;
0; Mismatches
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Pred.
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                                                                                                                                                                  75:1957-1961(1978)
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ced. No. 3.6;
Mismatches
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                                                                                                SIMILARITY
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Query Match

83.3%;

Score

35;

DB

1;

Length 113;

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RESULT 8
HV31_MOUSE
ID HV31_M
AC P01800
DT 21-JUL
DT 01-OCT
DT 15-JUL
DT 01-CCT
DC ENKATY
OC MAMMAI
OC II
OC PIR
OR PIR
OR INTERP
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ID HV30_M
AC P01799
AC P01799
DT 21-JUL
DT 15-JUL
DT 15
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Best Local :
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Eukaryota; Metazoa; Cl
Mammalia; Eutheria; Ru
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00047; 1g; 1.
Immunoglobulin V region.
DISULFID 22 98
NON.TER 113 113
SEQUENCE 113 AA; 12675
  DISULFID
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                        P01800;
21-JUL-1986 (Rel. 01, Created)
01-OCT-1993 (Rel. 27, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION T957.
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SEQUENCE
                                             InterPro; ir no...

Pfam; PF00047; ig; 1.

Immunoglobulin V region.

22 98
                                                                                                                                                                                   MEDLINE-81216632; PubMed-6787122;
Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYEI
                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-77134726; PubMed-402936;
Vrana M., Rudikoff S., Potter M.;
"Heavy-chain variable-region sequence
                                                                                                                PIR; A92810; AVMS57.
InterPro; IPR003006; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochemistry 16:1170-1175(1977).
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION ABE-47N.
                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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[1]
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7; Conserv
22
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12675
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Rodentia;
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Rodentia;
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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       26618F626B59859E
                                               SIMILARITY
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3.6;
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       CRC64;
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; Murinae; Mus
                                                                                                                                                                                                                                                           proteins
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Local

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Pred. No.

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RESULT HV34_M
ID HV34_M
ID AC
ID TO AC
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Best Local S
Matches 7
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Matches
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1996 (Rel. 01, East sequence
15-JUL-1999 (Rel. 38, Last annotati
IG HEAVY CHAIN V-III REGION J606.
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interpro; IPR003006; -.
Pfam; PP00047; 1g; 1.
Immunoglobulin V region.
DISULFID 22 98
NON_TER 113 113
SEQUENCE 113 AA; 12691 M
                                                                                                                               PIR;
                                                                                                                                                                                                                                                              MEDLINE-82099361; PubMed-6798111;
Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
                  DISULFID
                                                                                                                                                                                                    binding proteins.";
J. Immunol. 128:302-307(1982)
                                                                        Pfam;
                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID-10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Immunoglobulin heavy chains from anti evidence for a new heavy chain joining J. Immunol. 127:191-194(1981).
                                                                                                InterPro;
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P01803;
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Mammalia; Eutheria; Rcdentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
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21-JUL-1986 (Rel. 01, La
5-JUL-1999 (Rel. 38, La
CG HEAVY CHAIN V REGION
                                                                                                                         BINDS INULIN. C92811; AVMS06.
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C9281; AVD.
C9281; AVD.
CPTO; IPRO03006; -.
I; PF00047; 1g; 1.
CPTO-TABLE TO TO THE PROOF TO THE
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| GGGLVQPG 15
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01, Last sequence up
38, Last annotation
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Rodentia;
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87.5%;
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Pred. No. 3.6;
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thi; Muridae; Murinae; Mus
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RESULT 12
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Interpro; IPR003006; -.
Pfam; PF00047; Ig; 1.
Immunoglobulin V region.
DISULFID 22 98
NON_TER 115 115
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PO1802;
21-JUL-1986 (Rel. 01, Created
21-JUL-1986 (Rel. 01, Last se
15-JUL-1999 (Rel. 38, Last an
IG HEAVY CHAIN V-III REGION W
"Immunoglobulin structure and genetics. regions of a mu and a gamma2 chain.";
J. Biol. Chem. 25:2:7192-7199(1977)
-i- MISCELLANEOUS: THE SEQUENCES OF THE OF IGM AND IGG2 ISOLATED FROM A SING
                                                                                                                  HV3D_HUMAN STANDARD; PRT; 1
P01765;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION TIL.
                                                                                          Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                            MEDLINE=78005528; PubMed=409716;
Wang A.-C., Wang I.Y., Fudenberg
                                                               SEQUENCE
                                                                                  NCBI_TaxID=9606;
                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-82099361; PubMed-6798111; Johnson N., Slankard J., Paul L., The complete V domain amino acid
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SEQUENCE
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NCBI_TaxID=10090;
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Eukaryota; Metazoa; C
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Sciurognathi; Muridae; Murinae; Mus
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Mismatches
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HV3R_HUMAN STANDARD;
P01779;
21-JUL-1986 (Rel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outset the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                 NON_TER
SEQUENCE
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PIR; A02076; HVMS44.
HSSP; P01810; 2FBJ.
Interpro; IPR003006; -.
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MEDLINE-82059449; PubMed-6795591;
Ollo R., Auffray C., Sikorav J.-L., F
"Mouse heavy chain variable regions:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus MCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sibor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           germ-line VH gene segment.";
Nucleic Acids Res. 9:4099-4109(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
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21-JUL-1986 (Rel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00047; ig; 1.
Immunoglobulin V region; Signal.
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P01806;
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-JUL-1986 (Rel. 01, Last sequence update)
-JUL-1999 (Rel. 38, Last annotation update)
HEAVY CHAIN V REGION 441 PRECURSOR.
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12911 MW; 684FF3EF9A95D9F3 CRC64;
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HSSP; P01772; 2IG2.
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15-JUL-1999 (Rel. 38, Last annotation update)
IG HEAVY CHAIN V-III REGION TUR.
HOMO Sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                                                                                                                                   "The primary structure of a monoclonal IgM-immunoglobulin (macroglobulin Gal.), II: the amino acid sequence of the H-chain type), subgroup H III. Architecture of the complete IgM-molecule. Hoppe-Seyler's Z. Physiol. Chem. 354:1505-1509(1973).
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MEDLINE=75059123; PubMed=4803843;
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21-JUL-1986 (Rel. 01, Last sequence up
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Proc. Natl. Acad. Sci. U.S.A. 71:845-848(1974).
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Listing first 45 summaries
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MEDLINE-98247330; pubMed-9572972;
MEDLINE-98247330; pubMed-9572972;
Marii Arii, two genes encoding alpha-L-arabinofuranosidases in Cytophaga xylanolytica.";
Appl. Environ. Microbiol. 64:1919-1923(1998).
-i- CAPALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL NON-REDUCING ALPHA-L-ARABINOFURANOSIDE RESIDUES IN ALPHA-L-ARABINOSIDES.
EMBL; AF028018; AAC38456.1; -.
Hydrolase; Glycosidase.
BYDROLYBER ARC38456.1; -.
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068278;
01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
ARFI (EC 3.2.1.55) (ALPHA-L-ARABINOFURANOSIDASE) (ARABINOSIDASE).
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Bacteria; CFB group; Cytophagales; Cytophagaceae; Cytophaga.
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                 Redenbach M., Kieser H.M., Denapaite D., Eichner A
Kinashi H., Hopwood D.A.;
"A set of ordered cosmids and a detailed genetic a
the 8 Mb Streptomyces coelicolor A3(2) chromosome.
Mol. Microbiol. 21:77-95(1996).
                                                                                                                                      STRAINEAS(4),
MEDLINE-97000351; PubMed-8843436;
Pedenbach M., Kieser H.M., Denapaite
                                                                                                                                                                                                SEQUENCE FROM N.A. STRAIN-A3(2);
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Streptomyces coelicolor.

Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;

Bacteria; Streptomycineae; Streptomycetaceae; Streptomyces.
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James K.D., P
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"A set of ordered cosmids and a detailed genetic and physical map the 8 Mb Streptomyces coelicolor A3(2) chromosome.";
Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1999 (TrEMBLrel
01-NOV-1999 (TrEMBLrel
01-NOV-1999 (TrEMBLrel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. STRAIN-A3(2);
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUTATIVE HYDROXYLASE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGR; DR2216; -.
Hypothetical protein.
SEQUENCE 251 AA; 26'88 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               radiodurans R1.";
Science 286:1571-1577(1999).
EMBL; AE002254; AAF117:56.1;
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Bacteria; Thermus/Deinococcus
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Pred. No. 27;
2; Mismatches
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Q9ULB6;
01-MAY-2000 (TrEMBLrel. 13, C1
01-MAY-2000 (TrEMBLrel. 15, La
01-OCT-2000 (TrEMBLrel. 15, La
IMUNOGLOBULIN HEAVY CHAIN (FRA
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Q9QV16;
01-MAY-2000 (TEMBLrel. 13, C
01-MAY-2000 (TEMBLrel. 13, L
01-OCT-2000 (TEMBLRel. 15, L
                                                                                                                  NON_TER
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                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Manmalia; Eutheria; Primates;
                                                                                                SEQUENCE
                                                                                                                                                         PFAM;
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                                                                                                                                                                           INTERPRO;
                                                                                                                                                                                              HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Serum prolactin-binding protein (PRL-BP) identified as IgG."; C. R. Acad. Sci. II, Sci. Vie 317:293-29 HSSP; P01789; IMCP.
SEQUENCE 15 AA; 1469 MW; 35ED2512FF3FP
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Eukaryota; Metazoa;
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NCBI_TaxID=10118;
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P01772; 2FB4
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MEDLINE-98277139; PubMed-9614934;
Mu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalla; Eutherla; Primates; Catarrhini; Hominidae;
NCBI_TaxID-9606;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
HOMO Sapiens (Human)
                                                                                                                                                                                                                   Clin. Immunol. Immunopathol.
EMBL; AF035042; AAD56278.1;
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE-98277139; PubMed-9614934;
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01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-OCT-2000 (TrEMBLrel. 15,
                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
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                                                                                                                                                           PFAM; PF00047; 1g; 1.
                                                                                                                                                                            HSSP; P01772; 2FB4.
INTERPRO; IPR003006; -.
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Pred. No. 19;
0; Mismatches
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Q9PJT5;
Q1-CCT-2000 (TremBLrel. 15, Cre
r 01-CCT-2000 (TremBLrel. 15, La
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r 01-CCT-2000 (TremBLrel. 15, La
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O57998;
O1-AUG-1998 (TrEMBLrel. 07, Created)
O1-AUG-1998 (TrEMBLrel. 07, Last sequence update)
O1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
O1OCT-2010 (TrEMBLREL 15, Last annotation update)
O1OCT-2010 (TrEMBLREL 15, Last annotation update)
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EMBL, AE002342, AAF39551.1; -.

TIGR, TC0742; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

STRAIN-MOPN / NIGG;
MEDLINE-20150255; PubMed-10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., F
Read T.D., Brunham R.C., Peterson J., Utterback
White O., Hickey E.K., Peterson J., Utterback
Linher K., Weidman J., Khouri H., Craven B., E
Gwinn M., Nelson W., DeBoy R., Kolonay J., MCC
Gwinn M., Nelson W., DeBoy R., Kolonay J., MCC
Eisen J., Fraser C.M.;
MEDLINE=98344137; PubMed=9679194;
Kawarabayasi Y., Sawada M., Horikawa
Yamamoto S., Sekine M., Baba S.-I., I
                                    SEQUENCE FROM N.A. STRAIN=OT3;
                                                                     Pyrococcus horikoshii.
Archaea; Euryarchaeota;
NCBI_TaxID=53953;
                                                                                                                                                                                                                                                                                                                                                           Hypothetical protein. SEQUENCE 238 AA; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Genome sequences of Chlamydia trachomatis pneumoniae AR39.";
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Bacteria; Chlamydiales;
NCBI_TaxID=83560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                  INTERPRO; IPR002876; -. PFAM; PF01709; DUF28; 1.
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6; Conser
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75.0%;
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Last sequence update)
Last annotation update)
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H., Haikawa Y., Hin
Kosugi H., Hosoyama
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                                                                                  Thermococcaceae;
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Best Local S
Matches 6
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Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                     073907 PRELIMINARY;
073907;
01-AUG-1998 (TrEMBLrel. 0
01-AUG-1998 (TrEMBLrel. 0
01-MAY-2000 (TrEMBLrel. 1
CMKX-2.3 PROTEIN.
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Funahashi T., Tanaka T., Kudh Y., Yamazaki J., Kushida N.,
Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi
Masuchi Y., Shizuya H., Kikuchi H.;
"Complete sequence and gene organization of the genome of a
thermophilic archaebacterium, Pyrococcus horikoshii OT3.";
DNA Res. 5:55-76 (1998)
EMBL; AP000001; BAA293:2.1;
                                                                                                                                                                                                   Gallus gallus (Chicken).
Eukaryota; Metazoa; Chcr
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
HYPOTHETICAL 30.4 KDA FROTEIN.
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INTERPRO; IPR001279; -.
PFAM; PF00753; Lactamasse_B; 1.
Hypothetical protein.
SEQUENCE 257 AA; 28680 MW;
                                                                                                                                                         Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Pyrococcus abyssi geneme sequence: insights into archa structure and evolutior."; Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases EMBL; AJ248283; CAB49028.1; •.
      TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
SEQUENCE 272 AA; 30372 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Archaea; Euryarchaeota;
NCBI_TaxID=29292;
[1]
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                                         SEQUENCE FROM
                                                                                                 NCBI_TaxID=9031;
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5; Conserv
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                                                                                                                                                                       Aves;
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                                                                                                                                                                       Neognathae;
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Pred.
                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
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47;
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                                                                                                                                                                       Phasianinae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oguchi A.,
K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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RESULT Q06573 ID Q00 AC Q00

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Q06573 Q06573;

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Best Local s
Matches 6
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Best Local S
Matches 6
                                                                                                                                                                                                                        Takeo M.;

"CLoning and sequencing of the regulation gene of the phe "Cloning and sequencing of the regulation gene of the phe degradative genes from Pseudomonas putida BH.";

Submitted (AUG-1995) to the EMBL/GenBank/DDBJ databases.

EMBL; D63814; BAA09883.1; -.

EMBL; D63814; BAA09883.1; -.

INTERPRO; IPRO02078; -.

INTERPRO; IPRO02197; -.

INTERPRO; IPRO02197; -.

PPAM; PF00158; Sigma54; 1.

PROSITE; PS00675; SIGMA54 INTERACT_2; 1.

PROSITE; PS00676; SIGMA54 INTERACT_3; 1.

PROSITE; PS00688; SIGMA54 INTERACT_3; 1.

PROSITE; PS00688; SIGMA54 INTERACT_4; 1.

PROSITE; PS00688; SIGMA54 INTERACT_4; 1.

PROSITE; PS00688; SIGMA54 INTERACT_4; 1.
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Q52169;
Q1-NOV-1996
Q1-NOV-1996
Q1-OCT-2000
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PROSITE; PS00027; HOMEOBOX_2; 1
PROSITE; PS50071; HOMEOBOX_2; 1
HOMEOBOX; DNA-binding; Nuclear
SEQUENCE 323 AA; 36034 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pseudomonas putida
Bacteria; Proteoba
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-!- SUBCELLULAR LOCATION: NU
EMBL; X97667; CAA66257.1; --
HSSP; P23441; 1FTT.
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Buchberger A., Pabst O., Brandt T., Seidl K., Arnold H.H.;
Buchberger A., Pabst O., Brandt T., Seidl K., Arnold H.H.;
"Chick NKX-2.3 represents a novel family member of vertebrate
homologues to the Drosophila homeobox gene tinman: differential
expression of cNKX-2.3 and cNKX-2.5 during heart and gut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-BH;
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GVLIQPG 502
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                                                                                                                             83.3%;
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75.0%;
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                                                                                                Score 35; DB
Pred. No. 1e+0
1; Mismatches
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Last annotation updat
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09E644D7D54470CB
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1e+02;
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INTERPRO; IPROUZLO7; ...
INTERPRO; IPROUZLO7; ...
A PFAM; PF00158; sigma54; 1.
A PFAM; PF00158; sigma54; 1.
A PROSITE; PS00676; SIGMA54_INTERACT_1; 1.
DR PROSITE; PS00688; SIGMA54_INTERACT_3; 1.
PROSITE; PS00688; SIGMA54_INTERACT_4; 1.
DRA-binding; Activator; Placetor, Placet
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Best Local S
Matches
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01-0CT-2000
01-0CT-2000
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Tettelin H., Saunders N.J., Heidelberg J., Jeffries A.C., Elsen J.A., Ketchum K.A., Hood D.W., Peden J.F., Dodson R. Nelson W.C., Gwinn M.L., DeBoy R., Peterson J.D., Hickey E Haft D.H., Salzberg S.L., White O., Fleischmann R.D., Doug Mason T., Clecko A., Parksey D.S., Blair E., Cittone H., Cotton M.D., Utterback T.R., Khouri H., Qin H., Vamathevan
                                                                                                                        SEQUENCE FROM N.A.
STRAIN-MC58 / SEROGROUP B;
MEDLINE-01175755; Pubmed-10710307;
                                                                                                                                                                                                           Neisseria meningitidis (serogroup Bacteria; Proteobacteria; beta sul NCBI_TaxID=491;
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SEQUENCE
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-i- FUNCTION: REGULATORY PROTEIN OF THE PHENOL CATABOLIC PATHWAY

-i- SIMILARITY: THE CENTRAL REGION CONTAINS A SIGMA-54 FACTOR

INTERACTION ATP-BINDING DOMAIN.

-i- SIMILARITY: BELONGS TO THE NTRC FAMILY OF TRANSCRIPTIONAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pseudomonas sp. CF600.
Plasmid pVI150.
Bacteria; Proteobacteria
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01-0CT-2000 (TrEMBLrel. 15
01-0CT-2000 (TrEMBLrel. 15
01-0CT-Z000 (TrEMBLrel. 15
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6; Conservative
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                                                                                                                                                                                                                                                                                                 SUBUNIT
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Pred. No. le+(
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ATP (BY SIMILARITY).
ATP (BY SIMILARITY).
H-T-H MOTIF (BY SIMILARITY).
; 9261B4EE3A2F9B8D CRC64;
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subdivision;
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B8D CRC64;
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                       ckey E.K.,
Dougherty B.A.,
H., Clark E.B.,
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Science 287:1809-1815(2000).
EMBL; AE002532; AAF42162.1;
TICR; NNB1827; -
TICR; NNB1827: 1144 AA; 127134 MW
                                                                                                                                                                                                          Nature 404:502-506(2000).
EMBL; AL162753; CABB3921.1;
Transferase; Nucleotidyltran
SEQUENCE 1144 AA; 126975
                                                                                                                                                                                                                                                                                                   menigitidis Z2491.";
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MEDLINE=20222556; PubMed=
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Bacteria; Proteobacteri
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1144 AA; 126975 MW; 95270191E29EB412
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PubMed=10761919;
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M., Moxon E.R., Rappuoli R., Venter
ence of Neisseria meningitidis serog
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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       Match
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1: /cgn2_6/ptcdata/2/1aa/5A_COMB.pep:*
2: /cgn2_6/ptcdata/2/1aa/5B_COMB.pep:*
3: /cgn2_6/ptcdata/2/1aa/6A_COMB.pep:*
4: /cgn2_6/ptcdata/2/1aa/6B_COMB.pep:*
5: /cgn2_6/ptcdata/2/1aa/PCTUS_COMB.pep:*
6: /cgn2_6/ptcdata/2/1aa/backfiles1.pep:*
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Copyright (c) 1993 - 2000 Comp
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US-08-545-809A-125
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US-08-4483-199-16
US-08-4483-199-16
US-08-428-197-38
PCT-US93-10555-38
US-08-331-398A-55
US-08-331-398A-55
US-08-331-398A-55
US-08-331-398A-55
US-08-331-398A-55
US-08-401-908-14
US-08-89-931A-2
US-08-467-282B-80
US-08-467-282B-80
US-08-467-282B-80
US-08-467-282B-119
US-08-467-282B-119
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Sequence 4, Appli Sequence 108, Appl Sequence 116, Appl Sequence 16, Appl Sequence 16, Appl Sequence 16, Appl Sequence 38, Appl Sequence 42, Appl Sequence 65, Appl Sequence 55, Appl Sequence 55, Appl Sequence 57, Appl Sequence 57, Appl Sequence 51, Appl Sequence 11, Appl Sequence 11, Appl Sequence 80, Appl Sequence 119, App Sequence 119, App
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US-08-859-931A-4
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100.0%; Score 42; DB 2; 100.0%; Pred. No. 0.095;

Mismatches

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ALIGNMENTS

Title:

9.:

Sequence 4, Application US/08859931A Patent No. 5945510 GENERAL INFORMATION: TELEPHONE: (202) 293-7060 TELEFAX: (202) 293-7860 INFORMATION FOR SEQ ID NO: 4: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: ENERAL INFORMATION: APPLICANT: FASANO, Alessio TITLE OF INVENTION: SUBSTAN TITLE OF INVENTION: PHYSIOI TITLE OF INVENTION: MAMMALI APPLICATION NUMBER: US/08 FILING DATE: 21 MAY 1997 CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: KIT/ Gordon SEQUENCE CHARACTERISTICS: LENGTH: 20 amino acids TYPE: amino acid TOPOLOGY: linear TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 293-7060 NUMBER OF SEQUENCES: 9 CORRESPONDENCE ADDRESS: REGISTRATION NUMBER: 30,764 REFERENCE/DOCKET NUMBER: A-6901 CITY: Washington, D.C. STATE: D.C. ADDRESSEE: SUGHRUE, MION, ZINN, MACPEAK & SEAS STREET: 2100 Pennsylvania Avenue, N.W., Suite 800 20037 .. peptide SUBSTANTIALLY PURE ZONULIN, PHYSIOLOGICAL MODULATOR OF MAMMALIAN TIGHT JUNCTIONS US/08/859,931A

COMPUTER READABLE FORM

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/545
FILING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: .2CT/JP93/
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John '4.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 0650
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-8905
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ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                           APPLICANT: Honjo, Tasuku
APPLICANT: Matsuda, Funihiko
TITLE OF INVENTION: HUMAN INV
TITLE OF INVENTION: SEGMENTS
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ADDRESSEE: Fish & Richardson, P.C.
STREET: 225 Franklin Street
                                                               NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Ri
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APPLICANT: Matsuda, Funihiko
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COUNTRY:
                 STATE:
                              ADDRESSEE: Fish a ....
eTREET: 225 Franklin Street
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SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
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87.5%;
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                                                               Richardson, P.C
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SEQUENCE CHARACTERISTICS:
LENGTH: 118 amin
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                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 94662-8097
ZIP: 94662-8097
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                 TELEFAX: (510) 655-354
INFORMATION FOR SEQ ID NO:
                                                           NAME: SAVERGLU,
REGISTRATION NUMBER: 36,914
REFERENCE/DOCKET NUMBER: 08E
TELECOMMUNICATION INFORMATION:
(510) 601-2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP93/00603
FILING DATE: 10-MAY-1993
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
                                                                                                                                     CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: RING, DAVID B.
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                             STREET: INTERPORTED TOTY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity hes 7; Conserv
                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 07-JUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27 GGALVQPG 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/545,809A FILING DATE: 27-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: Windows95 SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Freeman, John W
REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/08475000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 118 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                 E: CHIRON CORPORATION INTELLECTUAL PROPERTY R440 - P.O. BOX 8097
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                               07-JUN-1995
                                                   655-3542
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                                                                                                                                                                                                                                                   Release #1.0, Version #1.25
                                                                                                                                                                                                               US/08/475,000
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Pred. No.
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RESULT 5
US-08403-199-16
; Sequence 16, Application US/08483199
. PATENT NO. 5849877
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                                                                                                          US-08-484-508-16
                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                 US-08-483-199-16
                                                         Sequence 16, Applicat Patent No. 5948647 GENERAL INFORMATION:
                                                                                                                                                                                                                                                  Query Match
Best Local 9
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INFORMATION FOR SEQ ID NO: 1/
SEQUENCE CHARACTERISTICS:
SEQUENCE TRACTH: 119 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: RING,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,199
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 36,914
REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
             APPLICANT: RING, DAVID B. TITLE OF INVENTION: ANTIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
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                                                                                                                                                                     1 GGVLVQPG 8
||||:||
8 GGVLVRPG 15
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ZIP: 94662-8097
                                                                                                                                                                                                                                   Local Similarity
les 7; Conserv
                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
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                                                                                           Application US/08484508
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INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         (510) 601-2585
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ANTIGEN-BINDING SITES OF ANTIBODY MOLECULES SPECIFIC FOR CANCER ANT 18
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Pred. No.
                                                                                                                                                                                                                                                  Pred. No. 3
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; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: prot
US-08-484-508-16
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Best Local Similarity
Thes 7; Conserv.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,508
FILING DATE: 07-JUN-1995
CLASSIFETCATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REGISTRATION NUMBER: 36,914
REFERENCE/DOCKET NUMBER: 0850.008
TELECOMMUNICATION INFORMATION:
TELECHONE: (510) 601-585
TELECHAN: (510) 601-585
TELECHAN: (510) 601-585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (510) 655-3542 INFORMATION FOR SEQ ID NO:
                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: SILVERMATITLE OF INVENTION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/
FILING DATE: 29-OCT-1993
                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acid
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ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY -
                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                    COUNTRY:
ZIP: 900
                                                                                                                                                                                                                                                                                     ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
CITY: Los Angeles
STATE: California
                                                              CLASSIFICATION:
                                                                                     FILING DATE
                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 GGVLVRPG 15
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5891438
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                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SILVERMAN, GREGG J.

VENTION: METHOD FOR STIMULATING PRODUCTION OF

VENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      119 amino acids
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51
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                                                                                                                                                                                                                                                                                                                                                                                                                                       VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES
                     PCT/US93/10555
                                                                                                       US/08/428,197
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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Query Match
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                                                                                                                                                                                                    TELEPHONE: (619) 455-5110
TELEPAX: (619) 455-5110
INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
1.FNGTH: 123 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity b...
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 38, Application PC/TUS9310555
GENERAL INFORMATION:
APPLICANT: SILVERMAN, GREGG T
                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTAL.
ZIP: 90067
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TWENTER: IBM PC compatible
TWENTER: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (619) 455-511
TELEFAX: (619) 455-511
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC:-DOS/MS-DOS
SOFTWARE: Patentin Evelase #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/10555
FILING DATE: 29-OCT-1993
                                                                                                                                                                                                                                                                                                      NAME: Howells, Stacy L.
REGISTRATION NUMBER: 34,842
REFERENCE, DOCKET NUMBER: FD.
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPERENCE/DOCKET NUMBER: FD TELECOMMUNICATION INFORMATION: TELECOMMUNICATION 1055-5100
                                                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MITHOD FOR STIMULATING PRODUCTION OF TITLE OF INVENTION: VARIABLE REGION GENE FAMILY RESTRICTED TITLE OF INVENTION: VACCINATION WITH A B-CELL SUPERANTIGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                  TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
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                               GGVLVQPG 8
GGTLVQPG 15
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: California
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GY: linear
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                                                                 Conservative
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Pred. No. 3.3;
0; Mismatches
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                                                                               Score 38; DB 5; Pred. No. 3.3;
                                                                 Mismatches
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3.3;
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AND CONJUGATES
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; Sequence 42, Application US/08652558; Patent No. 5861155; GENERAL INFORMATION:
APPLICANT: LIN, AUGUSTINE YEE-THARN
TITLE OF INVENTION: HUMANIZED ANTIBODI
TITLE OF INVENTION: THEREOF;
NUMBER OF SEQUENCES: 52;
CORRESPONDENCE ADDRESS:
ADDRESSEE: BANNER & WITCOFF
                                                                                                                                                            RESULT 10
US-08-652-558-42
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Best Local Similarity
Trihas 7; Conserv
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; MOLECULE TYPE:
US-08-331-398A-66
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INFORMATION FOR SEQ ID NO: 66
SEQUENCE CHARACTERISTICS:
SEQUENCE 15 amino acids
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APPLICATION NUMBER: US 07/
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 12-CCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, V. CURRENT APPLICATION LOADA: APPLICATION NUMBER: US/08/331,398A FILING DATE: 28-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew
STREET: One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
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                                                                                                                                                                                                                                    8 GGGLVQPG 15
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                                                                                                                                                                                                                                                                                                          Conservative
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FitzGerald, David
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                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
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                                                                                                                                                                                                                                                                                                                                                                                                             peptide
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87.5%;
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Pred. No.
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                                                                         ANTIBODIES AND USES
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COMPUTER READABLE FORM:

COUNTRY:

STREET:

75 STATE STREET, 23RD FLOOR

MASSACHUSETTS

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                                CURRENT APPLICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION: 435
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LENGTH: 15 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Pastan, Ira
APPLICANT: Benhar, Ital
TITLE OF INVENTION: Chime
TITLE OF INVENTION: Spect
TITLE OF INVENTION: There
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                           ZIP: 94105-1492
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-345-9100
TELEFAX: 617-345-9111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/652,558
FILING DATE: JUNE 6, 1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/IB94/00387
FILING DATE: NOVEMBER 21, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: 3.5 inch diskette, 1.4 mb storage COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WordPerfect 6.1

CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                               STATE: Califact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: YANKWICH, LEON R. REGISTRATION NUMBER: 30 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                   COUNTRY:
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We market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                        Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins,
Thereof
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87.5%;
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                                                                                                                              Version #1.30
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Best Local :
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                                                                                                                        CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/331,398
FILING DATE: 28-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
ADDITION TO DATA:
ADDITION TO DATA:
BERLICATION DATA:
BERLICATION DATA:
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NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REGISTRATION NUMBER: 0152/
REFERENCE/DOCKET NUMBER: 0152/
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION: 1415) 543-9600
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INFORMATION FOR SEQ ID NO: 1
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APPLICANT: Willingham
APPLICANT: FitzGerald
APPLICANT: Brinkmann,
APPLICANT: Pai, Lee
                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION UNMERR: US/08/759,804A
FILING DATE: 03-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
TELECOMMUNICATION INFORMATION:
                    APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-0CT-1990.
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen L.
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 015280-1;
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                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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les 7; Conserv
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Two Embarcadero Center, Eighth Floor
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Willingham, Mark
FitzGerald, David J.
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                    015280-126140US
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Pred. No. 1
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1.3;
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TOPOLOGY: 1: WOLECULE TYPE: US-08-331-398A-55
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
EILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
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NFORMATION FOR SEQ ID NO:
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                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
TYPE: amino acid
                                                                                                                                                                                                                               NAME: HUNTER, TOM
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126110US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Felease #1.0, Version #1.30
CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Pai, Lee TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended) NUMBER OF SEQUENCES: 68 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                  STRANDEDNESS
                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/331,398A FILING DATE: 28-OCT-1994
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ZIP: 94105-1492
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FitzGerald, David
Brinkmann, Ulrich
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                                                                                                                                                                                                                  (415) 543-9600
                                                                                                                                                                                                 543-5043
83.3%;
87.5%;
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Pred. No. 1.6;
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Pred. No. 1
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          Length 18;
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RESULT 15
US-08-331-397B-55
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// ORIGINAL SOURCE: heavy chain of C179
US-08-401-908-14
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US-08-401-908-14
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                                                                                       Sequence 55, Application US/08331397B
Patent No. 5981726
                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                               Matches
                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14, Application US/08401908 Patent No. 5684146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
APPLICANT: Pastan,
APPLICANT: Benhar,
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Warren M. Cheek, Jr.
REGISTAGN NUMBER: 3,367
REFERENCE/DOCKET NUMBER: 5TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: MS-DOS
SOFTMARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/4/
FILING DATE: March 10, 1995
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 536
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION: A DNA WHICH CODES FOR THE VARIABLE REGION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
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CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
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805 Fifteenth Street, N.W., #700
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Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins, and Uses
Thereof
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COUNTRY: USA
ZIP: 94105-1492
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTION DATA:
APPLICATION NUMBER: US/08/331,397B
FILING DATE: 28-OCT-1994
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US 07/57,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: HUNTER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: HUNTER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126120US
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: peptide
US-08-331-397B-55
Search completed: June 13, 2001, 14:16:36 Job time: 497 sec
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Best Local Similarity 87.5
Matches 7; Conservative
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew
STREET: One Warket Plaza, Steuart Street Plaza
CITY: San Francisco
STATE: California
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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score greater
and is derived
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/SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
3: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
5: /SIDS6/gcgdata/geneseq/geneseqp/AA1984.DAT:*
6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
7: /SIDS6/gcgdata/geneseq/geneseqp/AA1987.DAT:*
8: /SIDS6/gcgdata/geneseq/geneseqp/AA1987.DAT:*
9: /SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT:*
9: /SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT:*
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:
/SIDS6/gcgdata/geneseq/geneseqp/AA200.DAT:
/SIDS6/gcgdata/geneseq/geneseqp/AA2001.DAT:
/SIDS6/gcgdata/geneseq/geneseqp/AA2001.DAT:
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B41135 R66331 R66331 R80271 W80816 G06871 B63642 Y36831 G06870 Y51026 Y51026 Y51026 Y51029 W752586 W752586 W75221 Y92225 Y43261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261 Y23261	R52775 R52793 Y79108 Y79122 Y79122 G49731 Y32173 R67970 G49732 W55033 Y21970 Y05841 Y79123
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Anti-hill2 antibod Human ORFX ORF899 Human immunoglobul Wh region from an Amino acid sequenc Arabidopsis thalia Human gastric canc Amino acid sequenc Arabidopsis thalia Human gastric canc Amino acid sequenc Arabidopsis thalia Ashbya gossypii rib3 p A. gossypii rib3 p Fragment of human Human secreted pro Human secreted pro Human patched 2 pr Human patched 2 protein Human patched 2 pr Human patched 2 pr Human patched 2 pr Human patched 2 protein Hu	Murine BrE-3 immun Murine BrE-3 immun Peptide antagonist Peptide antagonist Peptide antagonist Arabidopsis thalia Chlamydia psittaci Alfalfa beta-1,3-g Arabidopsis thalia Actinobacillus ple APP ribA gene prod Banana ripening fr Peptide antagonist

ALIGNMENTS

Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatcological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy. 05-JUN-2000 (first entry) Y79120; 03-AUG-1998; 28-JUL-1999; WO200007609-A1 Synthetic. Peptide antagonist of zonulin. Y79120 standard; Peptide; 8 (UYMA-) UNIV MARYLAND BALTIMORE 17-FEB-2000 98US-0127815 99WO-US16683 A

WPI; 2000-205565/18

New peptide antagonist of zonulin useful as antiinflammatory agent for

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
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                                                                                                                                                                                                                                                                         blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiloler; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
              (UYMA-) UNIV MARYLAND EALTIMORE
                                                       03-AUG-1998;
                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                       Zonulin; antagonist; zonula occludens toxin receptor,
                                                                                               28-JUL-1999;
                                                                                                                                                                              WO200007609-A1
                                                                                                                                                                                                                                                            gastrointestinal inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                    Peptide antagonist of conulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y79124 standard; Peptide; 8 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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1 ggvlvqdg 8
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ilarity 100.0%;
Conservative 0
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                                                       98US-0127815
                                                                                           99WO-US16683
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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Length 8;

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recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of Ty in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This present sequence (2), one of 25 such pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 47; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-205565/18
                                                                      systemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    They can be prepared by chemical synthesis or by use of ant DNA techniques. The peptide antagonists are used as an
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              t sequence is that of a peptide antagonist of zonulin 25 such peptides (see Y79105-29) of the invention, to a zonula occludens toxin (ZOT) receptor, yet do no
                                                                   lupus
                                                                      erythematosus
                                                           or food allergies, primarily
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PF YXX
                                                                                                                                                                                                                              RESULT
Y79118
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Best Local
                                                                                                                                                                                                                                                                                                            Matches
                                                                                                 antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
 28-JUL-1999;
                                                                              hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
                                                                                                                      Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotect
                                        WO200007609-A1
                                                             Synthetic
                                                                                                            neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                     Peptide antagonist of zonulin.
                                                                                                                                                                           05-JUN-2000
                                                                                                                                                                                                 Y79118;
                                                                                                                                                                                                                  Y79118 standard; Peptide;
                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                       1 GGVLVQDG 8
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|ggllvqdg
                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                          (first entry)
99WO-US16683
                                                                                                                                                                                                                                                                                                                    92.7%;
                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                   Score 38;
Pred. No.
                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                       cerebroprotective;
                                                                                                                                                                                                                                                                                                                     w
                                                                                                                                                                                                                                                                                                         .2e+05;
les 0;
                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             c and human zonulins, which is believed to be critical for receptor to binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the zor receptor in the intestine and yet does not physiologically modulate the opening of TJ in the can recept of the strointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enteropathy conteriors by infection, bacterial overgrowth, whipple's disease, diseases with collagenous colitis, inflammatory bowel disease, diseases with collagenous colitis, increations, e.g. congenital intestinal lymphangiectasia, esacoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, and corrections at ease examinating the same with Fontan's operation, and increase systematical diseases without ulceration, e.g. Menetiler's diseases.
                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor and human zonulins, which is believed to be critical for receptor.
                                                                      Homo
                                                                                          Human; guanylin;
bacterium; heat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         coeliac disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 45; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                            Misc-difference
                                                                                                                                        Human
                                                                                                                                                                   21-DEC-1999
                                                                                                                                                                                                                        Y42459 standard; Protein; 115 AA
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                                                                                                                                                                        GGVLVQDG
                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                            systemic
                                                                                                                                                                                                                                                                                          ggvcvqdg
                                                                                                                                     guanylin preprohormone sequence.
                                                                                              nylin; preprohormone; intestinal guanylate cyclase heat stable enterotoxin; laxative; constipation.
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0127815
                           Location/Qualifiers
/label= unknown
/note= "encoded by GAN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         eosinophilic gastroenteritis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                            erythematosus
                                                                                                                                                                                                                                                                                                                                                            87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                            Score 36;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                         Length 8;
                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                           regulator;
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Best Local Similarity
""" hes 7; Conserv:
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                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y42458). This sequence is the encoded protein from a composite DNA sequence isolated by probing a human duodenum cDNA library with the corresponding rat coding sequence. Guanylin is an intestinal guanylate cyclase regulator which has similarity to bacterial heat stable enterotoxins which activate intestinal guanylate cyclases. The guanylin peptide can be used as a laxative in the treatment of constipation.
Disclosure; Fig 2; 14pp; English
                         Isolated protein used as a laxative in
                                                                                                                                                                                                                      US5969097-A.
                                                                                                                                                                                                                                                                                                                                                                           Y42460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isolated protein used as a laxative
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N-PSDB; Z22677.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JUN-1992;
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                                                                                Wiegand RC,
                                                                                                                                      23-JUN-1992;
                                                                                                                                                                                                                                                                           Human; guanylin; preprohormone; intestinal guanylate cyclase regulator; bacterium; heat stable enterotoxin; laxative; constipation.
                                                                                                                                                                                                                                                                                                                    Human guanylin preprohormone sequence
                                                                                                                                                                                                                                                                                                                                                21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-1992;
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                                                                                                           (SEAR ) SEARLE
                                                                                                                                                                 23-JUN-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                     Y42460 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 ggvtvqdg
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                                                      1999-590442/50
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                                                                                Currie
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69.
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Pred.
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12;
                           the treatment of constipation
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20; 1;

Length 115; Indels

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Best Local
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                                                                                                                                                                 07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
17-NOV-1997;
New human
disorders
                                                                                                                                                                                                            07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
                                                                                                                                                                                                                                            17-NOV-1997;
07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
                                                             Carter KC, Ebner R,
Kyaw H, Lafleur DW,
Ruben SM, Shi Y, So
                                                                                                                                                                                                                                                                                                                                                                             Human; secreted protein; fusion protein; gene therapy; protein therapy; diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; developmental abnormality; foetal deficiency; blood; allergy; renal; immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma; inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS; cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus; osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion; endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
                                                                                                            ( HUMA - )
                                                                                                                                                                                                                                                                                                    04-NOV-1998;
                                                                                                                                                                                                                                                                                                                         20-MAY-1999
                                                                                                                                                                                                                                                                                                                                              W09924836-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human secreted protein encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y42458). Guanylin is an intestinal guanylate cyclase regulator which has similarity to bacterial heat stable enterotox:ns which activate intestinal guanylate cyclases. The guanylin peptide can be used as a laxative in the treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUL-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y27892 standard; Protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   constipation.
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                                          1999-337740/28
                                                                                                                                                                                                                                                                                                                                                                   sapiens
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                                X85048
                                                                                                           HUMAN GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                              97US-00i4983
97US-00i4985
97US-00i4985
97US-00i4987
97US-00i4988
97US-00i6090
97US-00i6094
97US-00i6095
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                                                                                                                                                                                                                                                                  97US-0056100
97US-0054900
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                                                             W, Noore P.
Sopret DR,
                                                                                                           SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87.8%;
87.5%;
                                                                       Noore PA, Ni
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Pred. No.
                                                                Wei
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                                                               Feng
1 J,
Y;
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                                                                       Р, Ja
Olsen
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                                                                        Janat F;
sen HS, R
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                                                                       Rosen CA;
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secreted proteins and coding sequences useful for treating of the immune system and hyperproliferative disorders

treating

immune-related

disorders, immune system

immunoregulator useful

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RESULT Y 84 661 1 1D 4 671 1 1D 4
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Best Loc
Matches
                    Suppression of antigen presenting cell mediated lymphocyte proliferation, by administering a Zot-related immunoregula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              celiac disease; Sjogren's syndrome; systemic lupus erythematosus; auto-immune thyroiditis; idiopathic thrombocytopenic purpura; hemolytic anemia; Grave's disease; Addison disease; autoimmune orchitis; pernicious anemia; vasculitis; autoimmune coagulopath; polymyositis; myasthenia gravis; polymeuritis; pemphigus; rheumatic carditis; bermatomyositis; scleroderma; asthma; psoriasis; eczematous dermatitis; Karposi's sarcoma; inflammatory bowel disease; proliferative disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, Zot; zonula occludens toxin; zonulin; antigen presenting cell; APC; lymphocyte proliferation; antigen; auto-immune disorder; immune system rejection; multiple sclerosis; organ transplantation; inflammatory disease; allergic disease; rheumatoid arthritis; insulin dependent diabetes mellitus;
                                                                                                                                                                                                                                                     (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                       09-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide antagnonist FZI/O of zonula occludens toxin (zot)
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The invention relates to 125 novel genes and their fragments (nucleic acid sequences: X84933-X85057; amino acid sequences Y27567-Y27933) which are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Also, pathological conditions can be diagnosed by determining the amount of the new polypeptides in a sample or by determining the presence of mutations in the new polypucleotides. Specific uses are described for each of the 125 polynucleotides, based on which tissues they are most highly expressed in (see X84933 for described needs)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                        Sztein MB,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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87.5%;
                                                                                                                                                                                    Lu R,
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                                                                                                                                                                                    Tanner MK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fused protein
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Example 7; Page 59; 95pp; English

subsequent to tissue or organ transplantation

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immune-related disorders, immune system rejection subsequent to tissue or organ transplantation, or inflammatory or allergic diseases. The autoimmune or immune related disorders include multiple sclerosis, rheumatoid arthritis, insulin dependent diabetes mellitus, celiac disease, Sjogren's syndrome, systemic lupus erythematosus, auto-immune thyroiditis, idiopathic thrombocytopenic purpura, hemolytic anemia, Grave's disease, Addison disease, autoimmune orchitis, pernicious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           suppressing antigen presenting cell (APC)-mediated lymphocyte proliferation in a mammalian host pre-exposed to a particular antigen. The method comprises administering to the host an effective amount of a 20t-related immunoregulator selected from 20t (zonula occludens toxin) zonulin, the amount effective to down-regulate the activity of the APC.
                                                                                                                                                                                                                                                                                 neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antial hypotensive; immunosuppressive; antiparasitic; vasotro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            anemia, vasculitis, autoimmune coagulopathies, myasthenia gravis, polyneuritis, pemphigus, rheumatic carditis, polymyositis, polymyositis, and scleroderma. The inflammatory or allergic disease permatomyositis, and scleroderma. The inflammatory or allergic disease or disorder is selected from asthma, psoriasis, eczematous dermatitis,
WPI; 2000-205565/18
                                                                                                                                                                                                                                                                   gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y79119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Karposi's sarcoma, multiple sclerosis, inflammatory bowel disease, proliferative disorders of smooth muscle cells, and inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The method can be used to down-regulate APC-mediated lymphocyte proliferation in mammalian hosts suffering from auto-immune or
                                                                                                  03-AUG-1998;
                                                                                                                                   28-JUL-1999;
                                                                                                                                                                   17-FEB-2000
                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                  blood-brain barrier; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                  Zonulin; antagonist; zonula occludens toxin receptor; human;
                                                                                                                                                                                                                                                                                                                                                                                     Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y79119 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              conditions associated with mycotic, viral,
                                                                (UYMA-) UNIV
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                                                                MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                  98US-0127815
                                                                                                                                 99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82.9%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    represents a peptide antagonist of zonula occludens ide. The specification describes a method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 34; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                    cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              parasitic,
                                                                                                                                                                                                                                                                                                    antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or bacterial
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recombinant DNA techniques. The peptide antagonists are used as an antiniflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                            collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      that bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This present sequence is that of a peptide antagonist of zonulin, corresponding to residues 8-15 of human foetal intestinal zonulin. It is one of 25 peptide antagonists (see Y79105-29) of the invention that bind to a zonula occludens toxin (ZOT) receptor, yet do not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1;
                                                                                                                                                                                                                                                   mucosal erosion or ulcerations, e.g. gastritis, gastric cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human zonulins,
                                                                          systemic lupus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The peptide antagonists are based on a common man zonulins, which is believed to be critical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 They can be prepared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69pp;
                                                                          erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         by chemical synthesis or by use
                                                                          or food
                                                                          allergies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for receptor
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Matches Local Similarity 1 GGVLVQDG 8 7; Conservative 82.9%; 87.5%; 0; Score 34; Pred. No. Mismatches : DB 21; .2e+05; Length Indels 8 0; Gaps 0

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Sequence

8

AA

RESULT Y79128 밁 Y79128; Y79128 standard; Peptide; 8 AA. μ ø ggvlvqpg œ

05-JUN-2000

(first entry)

Peptide antagonist of zonulin.

blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; 03-AUG-1998; 28-JUL-1999; gastrointestinal Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotect WO200007609-A1 Synthetic nypotensive; immunosuppressive;
inal inflammation; t 98US-0127815 99WO-US16683 antiparasitic;

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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
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WO9852415-A1
                                                                                                                                                                                                                                                                                                         Zonulin; mammalian tight junction; zonula occludens toxin; ZOT; Vibrio cholerae; vaccire; cholera toxin; polyclonal antibody; intestinal mucosa; nassi mucosa; blood brain barrier.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human foetal intestine zonulin N-terminal peptide
                                                                                                                        Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W94489 standard; peptide; 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYMA-) UNIV MARYLAND BALTIMORE
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|| ||||
1 ggglvqdg 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                           Location/Qualifiers
                                                                         /note= "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8:2.9%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 34; DB 21;
Pred. No. 3.2e+05;
0; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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CC molecular weight of 47 kD, as determined by SDS-PAGE, which is CC molecular weight of 47 kD, as determined by SDS-PAGE, which is CC recognised by both anti-tau polyclonal antibody and by anti-zonula CC occludens toxin (ZOT) polyclonal antibody, and is capable of reversibly CC opening mammalian tight junctions. Zonulin proteins function as CC physiological modulators of mammalian tight junctions. They can be used CC for enhancing the absorption of therapeutic agents across tight junctions of intestinal and nasal mucosa and across tight junctions of Legal punctions of intestinal and nasal mucosa and across tight junctions of CC ce.g. lidocaine, adenosine, dobutamine, dopamine, epinephrine, norepinephrine, phentolamine, doxapram, alfentanil, dezocin, nalbuphine, CC comprenorphine, naloxone, ketorolac, midazolam, propofol, metacurine, CC mivacurium, succinylcholine, cytarabine, mitomycin doxorubicin, cetoxitin, cefenicid, cefmetazole and arreconam, a hormone e.g. cultoristine, vinblastine, methicillin, mezlocillin, piperacillin, cotoxitin, cefenicid, cefmetazole and arreconam, a hormone e.g. testosterone, nandrolene, menotropins, insulin, urofolitropin, cotoxitin, can also be used for the production of antibodies which can be used to assay for zonulin in body tissue or fluids, or in affinity-copatities of zonulin. The present sequence represents an N-terminal copatities of zonulin.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of across intestinal and masal mucosa and blood brain barrier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 45; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-070123/06.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-NOV-1998
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                                             zonulin.
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0859931
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FH FFT XXX
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Y79133
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                                                                                                                                                                                                         Query Match
Best Local Similarity
"atches 7; Conserv:
         Misc-difference
                                                  gastrointestinal inflammation;
                                                                                  Human foetal intestine zonulin N-terminal sequence.
                                                                                                      05-JUN-2000
                                                                                                                       Y79133
                                                                                                                                       Y79133 standard;
                                                             human;
                                                                    Zonulin;
                                                                                                                                                                                  œ
                                                                                                                                                                                                  1 GGVLVQDG
                                  sapiens
                                                                                                                                                                                 ggvlvqpg 15
                                                            blood-brain
                                                       antagonist; zonula occludens toxin receptor;
lood brain barrier; antiinflammatory;
                                                                                                                                                                                                                  Conservative
                                                                                                    (first entry)
                                                                                                                                                                                                 8
         Location/Qualifiers
/note= "unidentified residue"
                                                                                                                                       Peptide;
                                                                                                                                                                                                                          82.9%;
                                                                                                                                       20 AA
                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                Score 34; DB
Pred. No. 4.5;
0; Mismatches
                                                therapy.
                                                                                                                                                                                                                      DB
4.5;
                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                 Length 20;
                                                                                                                                                                                                                Indels
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RESULT
R52775
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Best Local S
Matches 7
                                                              13-NOV-1992;
13-NOV-1992;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and fo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human intestinal zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Vibrio cholaronula occludens toxin (ZOT) to identify a common motif thought
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-AUG-1998;
Chimeric human-murine polypeptide(s) specific for human mammary
                     WPI; 1994-183509/22.
                                                                                                         15-NOV-1993;
                                                                                                                              26-MAY-1994
                                                                                                                                                  WO9411508-A
                                                                                                                                                                        Mus musculus
                                                                                                                                                                                             chimeric
                                                                                                                                                                                                                            Murine BrE-3
                                                                                                                                                                                                                                                                       R52775;
                                                                                                                                                                                                                                                                                           R52775 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is that of the N-terminal region of foetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fagano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-FEB-2000
                                                                                                                                                                                                                                                  24-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VIND (-AMYD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200007609-A1
                                         (CANC-)
                                                                                                                                                                                          Immunoglobulin variable domain; primer; polymerase chain reaction;
chimeric antibody; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reatment of conditions associated with breakdown of the blood-brain
                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
mes 7; Conserv
                                                                                                                                                                                                                                                                                                                 12
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                  1 GGVLVQDG
                                                                                                                                                                                                                                                                                                                                              CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MARYLAND BALTIMORE
                                                                                                                                                                                                                           immunoglobulin heavy chain variable domain N-terminus
                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                            A,
                                                             92US-0977706.
92US-0977707.
93US-0128015.
                                         RES FUND
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                                                                                                        93WO-US11316
                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69pp;
                                                                                                                                                                                                                                                                                                                                                                                                  82.9%;
87.5%;
                                         CONTRA
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                                                                                                                                                                                                                                                                                                                                                                                                 Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                           Å
                                         COSTA
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                                                                                                                                                                                                                                                                                                                                                                                                 DB 4.5;
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                                                                                                                                                                                                                                                                                                                                                                                                             Length 20
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RESULT
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Best Local
                                                                                                                                                                                                                                                                                                 16-NOV-1992;
30-SEP-1993;
08-OCT-1993;
Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62765-Q62769) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. R52792 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62740-Q62744) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. R52774 and R52775). The general agreement between the predicted and the
                                                                                                                                                                                            New analogue peptide(s) comprising antibody variable regions used to develop prods. for use in the detection, diagnosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunoglobulin chimeric antibo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine BrE-3 immunoglobulin heavy chain variable domain N-terminus
                                                                                                                                                  Example 12; Page
                                                                                                                                                                            therapy
                                                                                                                                                                                                                                        WPI; 1994-183510/22.
                                                                                                                                                                                                                                                                                                                                                                                                                     WO9411509-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R52793 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neoplasia, with
                                                                                                                                                                                          used to
                                                                                                                                                                                                                                                                    (CANC-) CANCER
                                                                                                                                                                                                                                                                                                                                                           16-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                      26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               determined amino acid sequences that the cloned cDNAs encode BrE-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      fat globule antigén - for imaging,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGVLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ggvlvqpg 15
                                                                                                                                                                            develop prods. for use in t
and prevention of neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 32; 54pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΑĄ,
                                                                                                                                                                                                                                                                                                 92US-0977696.
93US-0129930.
93US-0134346.
                                                                                                                                                                                                                                                                    RES FUND CONTRA COSTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          variable domain;
                                                                                                                                                                                                                                                                                                                                                           93WO-US11445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         less undesirable
                                                                                                                                               53; 54pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          able domain; primer; polymerase chain reaction; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25
                                                                                                                                                 English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnosing and treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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This present sequence is that of a peptide antagonist of zonulin (C12), one of 25 such peptides (see Y79105-29) of the invention, CC which bind to a zonula occludens toxin (ZOT) receptor, yet do not CC physiologically modulate the opening of mammalian tight junctions CC (TJ). The peptide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of CC recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agent; in the treatment of gastrointestinal CC inflammation, where they bind to the ZOT receptor in the intestine CC and yet does not physiologically modulate the opening of TJ in the CI intestine. Gastrointestinal inflammation conditions give rise to concreased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy CC caused by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, bacterial overgrowth, whipple's disease, diseases with CC collagenous colitis, inflammatory bowel disease, diseases marked by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 42; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                               New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                   shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-205565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antlinflammatory; cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y79108 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R52793). The general agreement between the predicted and the determined amino acid sequences that the cloned cDNAs encode BrE-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MARYLAND BALTIMORE
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5.7;
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Best Local S
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and numan zoncuture, mind and human zoncuture, minding. They can be prepared by chemical synthesis or by use or recombinant DNA techniques. The peptide antagonists are used as an antiinflammattory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for increased intestinal conditions that cause protein losing enteropath
                                                                                                                                                  This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding.
                                                                                                                                                                                                                                                                                                    New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zonulin; antagonist; zonula occludens toxin receptor, blood-brain barrier; antlinflammatory; cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal disease without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gastrointestinal inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypotensive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y79122 standard; Peptide;
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                                                                                                                                                                                                                                                                           Page 46; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic; anti-HIV; vulnerary; antiallergic;
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                                                                                                                                                                                                                                                                           English.
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Pred. No. 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21;
3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 8;
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                     Score
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778880055544444
778880055555555
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4.209 Million cell updates/sec
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$78561
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$61491
$709401
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$65127
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$3638
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                                  5-methyltetrahydro GTP cyclohydrolase
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hypothetical 97.1
AP4A hydrolase - A
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glucan endo-1,3-be
          probable pgk prote hypothetical prote
                                                          hypothetical prote phenylethanolamine
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probable nitrogen
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plasma protein Z -
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CS3 pilin synthesi
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ABC transporter, A
FixI protein - Rhi
                                                                                                                                                                                                                                                                                                                   phage-related prot
                                                                                                                                                                                                                                                                                                                                             polyprotein - toma
                                                                                                                                                                                              nclusion membrane
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ALIGNMENTS

polyprotein - tomato
C;Species: Lycopersicon esculentum (tomato)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 11-May-2000
C;Accession: T17459
R;Parniske, M.; Jones, J.D.
Proc. Natl. Acad. Sci. U.S.A. 96, 5850-5855, 1999
A;Title: Recombination between diverged clusters of the tomato Cf-9 plant dia;Reference number: Z18801; MUID:99254130
A;Accession: T17459

plant disease

A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-1542 <PAR> A;Cross-references: EMBL:AFf119040; NID:g4235640; PID:g4235644; PIDN:AAD13304.1

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guanylin precursor [validated] - human
C;Species: Homo sapiens (man)
C;Date: 21-Sep-1993 #sequence_revision 26-May-1995 #text_change 08-Dec-2000
C;Accession: A46279; S29228; S29807
R;de Sauvage, F.J.; Keshav, S.; Kuang, W.J.; Gillett, N.; Henzel, W.; Goeddel, D.V.
Proc. Natl. Acad. Sci. U.S.A. 89, 9089-9093, 1992
A;Title: Precursor structure, expression, and tissue distribution of human guanylin. A;Reference number: A46279; MUID:93028409
A;Accession: A46279; MUID:93028409
                             A; Molecule type: mRNA
A; Residues: 1-115 <WIE>
A; Cross-references: GB: M97496; NID: g183414; PIDN: AAA35915.1; PID: g183415
A; Kuhn, M.; Raida, M.; Adermann, K.; Schulz-Knappe, P.; Gerzer, R.; Heim,
FEBS Lett. 318, 205-209, 1993
                                                                                                                                                                                                                                            A;Cross-references: GB:M95174; NID:g306823; PIDN:AAA58625.1; PID:g306824 A;Note: sequence extracted from NCBI backbone (NCBIN:115377, NCBIE:115378) R;Wiegand, R.C.; Kato, J.; Huang, M.D.; Fok, K.F.; Kachur, J.F.; Currie, M FEBS Lett. 311, 150-154, 1992 FEBS Lett. Human guanylin: CDNA isolation, structure, and activity.
                                                                                                                                                                                       A;Reference number: S29228; MUID:93011964
A;Accession: S29228
                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-115 <DE1>
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Best Local Similarity
Matches 7; Conser
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The circulating bioactive form of human guanylin is a high molecular weight
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87.5%;
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Pred. No.
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                                                                 Heim, J.M.; Forss
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A;Experimental Source: plasma
A;Note: amino-terminal sequencing of mature form and moles
C;Comment: Guanylin is an endogenous ligand for an intest:
n of the same receptor.
C;Genetics:
A;Gene: GDB:GUCA2
A;Cross-references: GDB:136460; OMIM:139392
A;Cross-references: Intestine
C;Keywords: hormone; Intestine
F;1-21/Domain: signal sequence #status predicted <SIG>F;22-115/Product: guanylin #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y, Rieger,
                   hypothetical protein Rv3885c
C; Species: Mycobacterium tub
C; Date: 17-Jul-1998 #sequence
                                                                                           RESULT
F70597
                                                                                                                                                                                      В
                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Kunst, F; Ogasawara, N; Moszer, I; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Cha A; Ebrilich, S.D.; Emmerson, P.T.; Entlan, K.D.; Errington, J.; Fabret, C.; Ferrari, E. A.Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.Authors: Lauber, J.; Lazacevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maucel, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle Rleger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A.; Authors: Schleich, S.; Scroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Serogakeuchi, M.; Tamakoshi, A.; Tamako, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, A.; Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.; Arterence number: A65580; MUID:98044033
                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:Z991..7; GB:AL009126; NID:g2634966; PIDN:CAB14549.1; PID:e1183837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               phage-related protein homolog yqbK - Bacillus subtilis
C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 15-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-305 < KUN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Status: preliminary; nucleic acid sequence not shown; translation
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A; Accession: S29807
A; Molecule type: protein
A; Residues: 22-68 <KUH>
                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
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Best Local Similarity
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                                                                                                                                                                                    271 GGVLLEDG 278
                                                                                                                                                                                                                              1 GGVLVQDG
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                                                                                                                                                                                                                                                                            Similarity 6; Conserv
                                                                                                                                                                                                                                                                               Conservative
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                 #sequence_revision
                                                                                                                                                                                                                                                                                                85.48;
75.08;
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67.5%;
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                                                      Mycobacterium tuberculosis (strain H37RV)
                                                                                                                                                                                                                                                                                                Score 35;
Pred. No.
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    17-Jul-1998 #text_change 22-Oct-1999
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A;Status: preliminary A;Molecule type: DNA
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R:Kahn, D.: David, M.: Domerque, O.: Daveran, M.L.: Ghai, J.: Hirsch, J. Bacteriol. 171, 929-939, 1989
A:Title: Rhizobium meliloti fixGHI sequence predicts involvement of a A;Reference number: A32052; MUID:89123173
A:Accession: C32052
                                                                                                         C;Species: Rhizobium meliloti
C;Date: 13-Jul-1989 #sequence_revision 13-Jul-1989 #text_change 11-Jan-2000
C;Accession: C32(52; S32847; S39994
                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Grandes 6; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A:Gene: DR0163
A:Map position: 1
C:Superfamily: unassigned ATP-binding cassette proteins;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-006 <WHI>
A:Cross-references: GB:AE001878;
A:Experimental source: strain R1
C:Genetics:
                                                                                                                                                                               FixI protein - Rhizobium meliloti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;White, O.; Elsen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, T.; Zalewski, S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.
Science 286, 1571-1577, 1999
A;Fittle: Genome sequence of the radioresistant bacterium Deinococcus radiodurans F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABC transporter, ATP-binding protein, MsbA family - Deinococcus radiodurans C:Species: Deinococcus radiodurans C:Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 17-Mar-2000 C:Accession: A75554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Reference number: A; Accession: A75554
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A75554
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"hes 7; Conserv
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A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S. A;Title: Deciphering the biology of Mycobacterium tuberculosis A;Reference number: A70500; MUID:98295987
A;Accession: F70597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamilin, N. Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, Nature 393, 537-544, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references: GB: Z94121;
A; Experimental source: strain ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-537 <COL>
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                                                                                                                                                                                                                                                                                               561 GGVVVEDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         uence of the radioresistant bacterium Deinococcus radiodurans R1. A75250; MUID: 20036896
                                                                                                                                                                                                                                                                                                                                                                                                    85.4%;
75.0%;
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87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : GB:AL123456; NID:g3261736; PIDN:CAB08089.1; PID:e31229
H37Rv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GB:AE000513; NID:g6457820; PIDN:AAF09749.1;
                                                                                                                                                                                                                                                                                                                                                                                                  Score 35;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 35; DB
Pred. No. 27;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                             ore 35; DB
ed. No. 31;
Mismatches
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                                                                                 P.R.; Batut,
                                       specific cation
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Holroyd,
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C;Comment: Protein Z is a single-chain plasma glycoprotein of unknown function. A and has no enzymatic activity.
C;Superfamily: coagulation factor X; EGF homology; Gla domain homology; trypsin hc;Keywords: beta-hydroxyaspartic acid; calcium binding; carboxyglutamic acid; gly:F;1-46/Domain: Gla domain homology (fragment) <GLA>
F;1-45/Domain: Gla domain homology (fragment) <GLA>
F;51-82/Domain: EGF homology <EGLA>
F;51-82/Domain: EGF homology <EGCA>
F;78-11,15,17,20,21.26,27,30,33,36,40/Modified site: gamma-carboxyglutamic acid
F;59,191,289/Binding site: carbohydrate (Asn) (covalent) #status experimental
F;64/Modified site: erythro-beta-hydroxyaspartic acid (Asp) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-757 <KAH>
A;Residues: 1-757 <KAH>
A;Cross-references: EMBL:Z21854; NID:g49403; PIDN:CAA79907.1; PID:g49414
C;Superfamily: Enterococcus copper-transporting ATPase copA; ATPase nucleotide-binding C;Keywords: phosphoprotein; transmembrane protein
E;162-495/Domain: ATPase transduction domain homology <ATT>
E;557-699/Domain: ATPase nucleotide-binding domain homology <ATN>
                                                                                                                                                                                                                                                                                                     R:Hoejrup, P.; Jensen, M.S.; Petersen, T.E. FEBS Lett. 184, 333-338, 1985
A;Title: Amino acid sequence of bovine protein A:Reference number: A22171; MUID:85204370
A;Accession: A22171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Geisel, C.; Wamsley, P.
submitted to the EMBL Data Library, May 1998
submitted to the sequence of C. elegans cosmid H11E01.
                                                                                                                                                                                                                                                                                                                                                                                                                   plasma protein 2 - bovine
C:Species: Bos primigenius taurus (cattle)
C:Date: 27-Nov-1985 #sequence_revision 27-Nov-1985 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Species: Caenorhabditis elegans;Date: 29-Oct-1999 #sequence_revision
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Best Local Similarity
Matches 6; Conser
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Best Local Similarity
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75.08;
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75.0%;
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Pred. No. 39;
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CS3 pilin synthesis protein, 104K - Escherichia coli
N;Contains: CS3 pilin synthesis protein, 104K; CS3 pilin synthesis protein, 20K; CS
C;Species: Escherichia coli
C;Date: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 21-Jul-2000
C;Accession: S78561; S07900; S07901; S07902; S07903
R;Jalajakumari, M.B.; Thomas, C.J.; Halter, R.; Manning, P.A.
Mol. Microbiol. 3, 1685-1695, 1980
A;Reference number: S07899; MUID:90158116
A;Accession: S78561
                                                                     A;Molecule type: DNA
A;Residues: 317-753 <JAF>
A;Cross-references: EMBL:X16944; NID:g41155;
A;Experimental source: strain PB176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Note: the source is designated as Anacystis nidulans R2 (;Superfamily: Synechococcus hypothetical protein 1; tetratricopeptide F;283-316/Domain: tetratricopeptide repeat homology <TT1>F;317-350/Domain: tetratricopeptide repeat homology <TT2>F;351-384/Domain: tetratricopeptide repeat homology <TT3>
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A;Title: Cloning and characterisation of genes for te A;Reference number: S42531; MUID:94169298
A;Accession: S42532
                     A; Molecule type: DNA
A; Residues: 451-753
                                                                                                                                                                                A; Cross-references: EMBL:X16944; A; Experimental source: strain PB1
                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 181-753 <JAW>
                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X16944
A;Experimental source: strain P
                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-937 < JAL>
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C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 05-Mar-1999
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A;Cross-references: EMBL:X16944; NID:g41155; PIDN:CAA34818.1; PID:g41159
                                                                                                                                                                                                                                                            A; Accession: S07900
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A;Residues: 1-403 <JON>
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32;
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. M.; Shen, M.; Vamathevan, J. S.; Smith, H.O.; Venter, J.C.; Science 286, 1571-1577, 1999
A; Title: Genome sequence of the A, Reference number: A75250; M. A; Accession: A75471
A; Status: preliminary
A; Molecule type: DNA
                                                                                                                    probable nitrogen regulator - Deinococcus radiodurans (strain R1) (C) Species: Deinococcus radiodurans (c) Species: Deinococcus radiodurans (c) Species: Deinococcus radiodurans (c) Strain R75471 R.White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterso, R.White, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterbac S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2-demethylmenaquinone 2-C-mathyltransferase (EC 2.1.1.-) menG [similarity] - My C;Species: Mycobacterium tuberculosis C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 02-Sep-2000 C;Accession: B70655
R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Daviin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Ho Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulsion, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complet A;Reference number: A70500; MUID:98295987
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A;Accession: S07903
A;Molecule type: DNA
A;Redession: S72-753 <JAZ>
A;Coss-references: EMBL:X16944; NID:g41155; PIDN:CAA34819.1; PID:g4116
A;Experimental source: strain PB176
C;Function:
A;Description: involved in the biosynthesis of CS3 pili
F;1-937/Product: CS3 pilin synthesis protein, 104K #status predicted F;181-753/Product: CS3 pilin synthesis protein, 48K #status predicted F;317-753/Product: CS3 pilin synthesis protein, 33K #status predicted F;451-753/Product: CS3 pilin synthesis protein, 33K #status predicted F;451-753/Product: CS3 pilin synthesis protein, 33K #status predicted F;451-753/Product: CS3 pilin synthesis protein, 20K #status predicted F;572-753/Product: CS3 pilin synthesis protein, 20K #status predicted
A;Residues:
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A;Residues: 1-157 <COL>
A;Residues: 1-157 <COL>
A;Cross-references: GB:2838(4; GB:AL123456; NID:g3261687; PIDN:CAB06213.1; PID:e301444;
A;Experimental source: strain H37Rv
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type: DNA
1-213 <WHI>
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Pred. No.
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Pred. No. 79;
1; Mismatches
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                                                                                                                                                                                                                                                                                                         1,3-beta-glucanase (EC 3.2.1.-), acidic - C;Species: Medicago sativa (alfalfa) C;Date: 11-Jun-1999 #sequence_revision 11-
                                                                                                                                                  C; Function:
                                                                                                                                                          A;Cross-references: EMBL:U27179; NID:g862930; PID:g862931
A;Experimental source: subspecies sativa, cultivar Apollo
                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-368 <CLO>
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A:Residues: 1-355 <ROC>
A:Cross-references: EMBL:L35036;
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R;Rockey, D.D.; Heinzen, R.A.; Hackstadt, T
MO1. Microbiol. 15, 617-626, 1995
A;Title: Cloning and characterization of a
A;Reference number: S61491; MUID:95302975
A;Accession: S61491
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C;Species: Chlamydophila psittaci, Chlamydia psittaci
C;Date: 27-Apr-1996 *sequence_revision 13-Mar-1997 *t
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C; Superfamily: regulatory
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A; Gene: DR0834
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A;Experimental source: strain R1
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Matches 6; Conserv
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                                        Score 33;
Pred. No.
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Pred. No. 45;
1; Mismatches
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GVMVQDG

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glucan endo-1,3-beta-D-glucosidase (EC 3.2.1.39) - garden pea
W.Alternate names: beta-1,3-gluconase
C:Species: Pisum astivum (garden pea)
C:Date: 23-Apr-1999 sequence_revision 23-Apr-1999 #text_change 18-Aug-2000
C:Accession: T06552; S28430
R.Chang, M.M.; Culley, D.E.; Hadwiger, L.A.
Plant Physiol. 101, 1121-1122, 1993
A.Title: Nuclocitide sequence of a pea (Pisumsativum L.) beta-1,3-glucanase gene.
A:Reference number: 21575; MUID:94143473
A.Recession: T06552
A:Status: translated from GB/EMBL/DDBJ
A:Recession: T06552
A:Status: translated from GB/EMBL/DDBJ
A:Residues: 1-370 < CHA1>
A:Reference number: S28430
A:Residues: 1-370 < CHA1>
A:Reference number: S28430; MUID:9309669; PiDN:AAA33648.1; PID:9169047
R:Chang M:M.; Hadwiger, L.A.; Horovitz, D.
A:Reference number: S28430; MUID:93081722
A.Title: Molecular characterization of a pea beta-1,3-glucanase induced by Fusarium sola
A:Reference number: S28430; MUID:93081722
A:Reference number: S28430
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Title:
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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IPR001934; IPR001757;

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Query Match
Best Local Similarity
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P00744;
21-JUL-1986
21-JUL-1986
15-JUL-1998
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TRANSMEM
                                                   MEDLINE-90062160; PubMed-2511201;
MISHIMUTA H., Kawabata S., Kisiel W., Hase Shimonishi Y., Iwanaga S.,
"Identification of a disaccharide (xyl-Glc)
(xyl2-Glc) O-glycosidically linked to a series (xyl2-Glc)
                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
DOMAIN
                           epidermal growth factor-like domain of protein Z and bovine protein Z."; J. Biol. Chem. 264:20320-20325(1989).
                                                                                                                      MEDILINE-85204370; PubMed-3888670;
HoejTup P., Jensen M.S., Petersen T.E.;
"Amino acid sequence of bovine protein
serine protease homolog.";
FEBS Lett. 184:333-338(1985).
                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea Bovidae; Bos. MCBI_TaxID-9913;
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METAL
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STRUCTURE OF CARBOHYDRATE ON SER-53. MEDLINE-91344709; PubMed-2129367;
                                                                                           STRUCTURE OF CARBOHYDRATE ON SER-53. MEDLINE-90062160; PubMed-2511201;
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PROSITE; PS00154; ATPA.
PROSITE; PS01047; HMA;
                                                                                                                                                                                                                                               VITAMIN K-DEPENDENT
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    Created)
    Last sequence update)
    Last annotation update)
    PROTEIN Z.

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75
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PHOSPHORYLATION (PROBABLE)
DE2E5C6249254AA5 CRC64;
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POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                          Score 35; DB
Pred. No. 21;
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CYTOPLASMIC (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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                                                                                                                                                    T.E.;
                                      of human
                                                                                                                                                                                                          Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                             396
                                                                                   Hase S.,
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                                              3lc) and a trisaccharide
  serine residue in the first
human factors VII and IX and
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                                                                                   Ikenaka T.,
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RESULT 5
YCOA_SYNP7

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YCOA_SYNP7

STANDARD;

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GGVLIQD

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Best Local S
Matches 6
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-I- FUNCTION: SINGLE-CHAIN PLASMA GLYCOPROTEIN OF UNI-
-I- SUBCELLULAR LOCATION: EXTRACELLULAR.

-I- TISSUE SPECIFICITY: PLASMA.
-I- TISSUE SPECIFICITY: PLASMA.
-I- SIMILARITY: ALTHOUGH HOMOLOGOUS WITH THE VITAMIN.
-I- SIMILARITY: ALTHOUGH HOMOLOGOUS WITH THE ESSENTIF CLOTTING FACTORS, IT HAS LOST TWO OF THE ESSENTIF RESIDUES AND HAS NO ENZYMATIC ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPRO00152;
InterPro; IPRO00561;
InterPro; IPR000561;
InterPro; IPR001254;
InterPro; IPR001254;
InterPro; IPR001254;
InterPro; IPR000283;
Pfam; PF00008; EGF; 2.
Pfam; PF00099; trypsin; 1.
Pfam; PF00099; trypsin; 1.
PFNNTS; PR00001; GLABLOOD.
PROSITE; PS00011; GLAS, HYDROXYL; 1.
PROSITE; PS00011; ASX, HYDROXYL; 1.
PROSITE; PS00011; GLAS, HYDROXYL; 1.
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DOMAIN
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DOMAIN
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PROSITE; PS01186; EGF_2;
Plasma; Glycoprotein; Gam
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MEROPS; S01.979;
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GGVLVQD
                                        Similarity
6; Conserv
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143
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E
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                                      Score 34; DB
Pred. No. 17;
1; Mismatches
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BY SIMILARITY.
BY SIM
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-LIKE 1.
-LIKE 2.
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D (GLCNAC...).
D (GLCNAC...).
D (GLCNAC...).
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                                                                            Length 396;
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ne residue in the
                                          Indels
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P15484; P15485; P15486; P15487;

01-APR-1990 (Rel. 14, Created)

01-NOV-1995 (Rel. 32, List sequence update)

01-NOV-1997 (Rel. 35, List annotation update)

01-NOV-1997 (Rel. 35, List annotation update)
                                                                         MEDLINE-9018116; PubMed-2576094;
MEDLINE-901816; PubMed-2576094;
MEDLI
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                       "Galajakumari M.B., Thomus C.J., Halter R., Manning "Genes for biosynthesis and assembly of CS3 pili or enterotoxigenic Escherichia coli: novel regulation production by bypassing an amber codon."; Mol. Microbiol. 3:1685-1695(1989).
                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                         NCBI_TaxID=562;
                                                                                                                                                                                                                              Escherichia
                                                                                                                                                                                                                                             Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                    Escherichia coli
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01-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
HYPOTHETICAL 45.0 KDA PROTEIN IN COBA 5'REGION.
SYNECHOCOCCUS SP. (Strain PCC 7942) (Anacystis nidulans R2).
Bacteria; Cyanobacteria; Chroococcales; Synechococcus.
NCBI_TaxID-1140;
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      FUNCTION: THIS
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Pro; IPR001173; -.
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208 24;
244 28;
283 316
317 350
351 387
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ns J.M., Smith A.G., Howe
      PROTEIN IS
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316
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r tetrapyrrole |
s R2.";
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THE BIOGENESIS
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of CFA/II
of pilus
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RESULT
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Best Local S
Matches 6
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SEQUENCE FROM N.A.
STRAIN=CV. ALCAN; TISSUE=Leaf;
STRAINE=94143473; PubMed=8310053;
MEDLINE=94143473; PubMed=8310053;
Chang M.-M., Culley D.E., Hadwiger
Chang M.-M., Sequence of a pea (Pis
                                                                                                                                                                                                                                                                       01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
GLUCAN ENDO-1,3-BETA-GLUCOSIDASE PRECURSOR (EC 3.2.1.39) ((1->3)-BETA-GLUCAN ENDOHYDROLASE) ((1->3)-BETA-GLUCANASE) (BETA-1,3-
            Fusarium solani and chitosan challenge.";
Plant Mol. Biol. 20:609-618(1992).
                               STRAIN=CV. ALCAN; TISSUE=Leaf;
MEDLINE=93081722; PubMed=1450378;
Chang M.-M., Hadwiger L.A., Horovitz D.;
"Molecular characterization of a pea beta-1,3-glucanase
                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Embryophyta; Traches Magnoliophyta; eudicotyledons; core eudicots; Fabales; Papaleae; Papilionoideae; Pisum.
                                                                                                                                                                                                                                          Pisum sativum (Garden pea).
Eukaryota; Viridiplantae; E
                                                                                    SEQUENCE OF 32-370 FROM N.A
                                                                                                             Plant
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CHAIN
                                                                                                                                                                                                                                                                    ENDOGLUCANASE)
                                                                                                                                                                                                          NCBI_TaxID=3888;
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EMBL; X16944; CAA34816.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an
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   FUNCTION:
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SUBCELULIAR LOCATION: INTEGRAL MEMBRANE PROTEIN. OUTER MEMBRANE (BY SIMILARITY).
ALTERNATIVE PRODUCTS: FIVE PROTEIN ARE PRODUCED BY ALTERNATIVE INITIATION. THE FIFTH PROTEIN REQUIRES THE SUPPRESSION OR READTHROUGH OF AN INTERNAL AMBER CODON IN POSITION 754.
SIMILARITY: BELONGS TO THE FIMBRIAL EXPORT USHER FAMILY.
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                                                                                                          Physiol.
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membrane; Transmembrane; Fimbria; Transport; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 75.
6; Conservative
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(Pisum
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Pred. No. 41;
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S3 PILI SYNTHESIS 40
S3 PILI SYNTHESIS 31
S3 PILI SYNTHESIS 31
S3 PILI SYNTHESIS 21
6C53056EE96277B5 (
DEFENSE OF PLANTS
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sativum
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RESULT 8
A2BP_MOUSE
ID A2BP_MOUSE
ID A2BP,
AC Q9JJ43
DT 01-CCT
DT 01-CCT
DT 01-CCT
DT ATAXIN
GN A2BP1
OC ENKARY
OC ENKARY
OC MARMEL
OX NCBI_T
RN 11
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Matches 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACT_SITE
ACT_SITE
CARBOHYD
SEQUENCE
                                                                   MEDLINE=20275619; PubMed=10814712;
Shibata H., Huynh D.P., Pulst S.-M.;
Shibata H., Huynh D.P., Pulst S.-M.;
A novel protein with RNA-binding motifs interacts with
"A novel protein with RNA-binding motifs interacts with
Hum. Mol. Genet. 9:1303-1313(2000).
-!- SUBUNIT: BINDS TO THE C-TERMINAL OF ATAXIN-2.
-!- SIMILARITY: CONTAINS 1 RNA RECOGNITION MOTIF (RRM).
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-C57BL/6; TISSUE-Brain;
STRAIN-C57BL/6, TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROPEP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                            made by oligo-capping 
Submitted (APR-2000) (
                                                                                                                                                                                                                                                                                                         "isolation of full-length cDNA clones made by oligo-capping method.";
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                                                                                                                                                                                                   SEQUENCE OF 21-396 FROM N.A. MEDLINE-20275619; PubMed-108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A2BP1 OR A2BP.
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PROSITE; PS00587; GLYCOSYL_HYDROL_F17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
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TISSUE SPECIFICITY: CONSTITUTIVELY EXPRESSED INDUCTION: BY FUNGAL ELICITORS.
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SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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REMOVED IN MATURE FORM (BY SIMILARITY).
PYRROLIDONE CARBOXYLIC ACID (PROBABLE).
NUCLEOPHILE (BY SIMILARITY).
PROTON DONOR (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL).
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DOMAIN 116
CONFLICT 60
CONFLICT 128
CONFLICT 369
SEQUENCE 396 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isogai T., Ota T., Hayashi K., Sugiyama T., Otsuki T., Suzuki Y., Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H., Wagatsuma M., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara Takahashi M., Chiba Y., Ishida S., Murakawa K., Ono Y., Takiguchi Watanabe S., Kimura K., Murakami K., Ishii S., Kawai Y., Saito K., Yamamoto J., Wakamatsu A., Nakamura Y., Nagahari K., Masuho Y., Ninomiya K., Iwayanagi T.;
"NEDO human CDNA sequencing project.";
                                                                                                                                                       use by
modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A2BP1 UN GALLA HOMO Saplens (Human).
Homo saplens (Human).
Eukaryota; Metazoa; Chordata;
Eukaryota: Futheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O9NWB1; O9NS20;
01-OCT-2000 (Rel. 40, Created)
01-OCT-2000 (Rel. 40, Last sequence up
01-OCT-2000 (Rel. 40, Last annotation
ATAXIN 2-BINDING PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                  EMBL;
                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                  This
                                                                                                                                                                                                                                                                                                                                                           MEDLINE-20275619; PubMed-10814712; Shibata H., Huynh D.P., Pulst S.-M.; Shibata H., Huynh D.P., Pulst S.-M.; "A novel protein with RNA-binding motifs interacts with ataxin-2."; "A novel protein with RNA-binding motifs interacts with ataxin-2."; Hum. Mol. Genet. 9:1303-1313(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted
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|||: |||
295 GGVVYQDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                              EMBL; AK001027;
                                                                                                                                  entities requires
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                                                                                                                           s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Ew Buropean Bioinformatics Institute. There are no restroy non-profit institutions as long as its content ified and this statement is not removed. Usage by and its requires a license agreement (See http://www.isb-sites.requires a license agreement (See http://www.isb-sites.requires a license agreement (See http://www.isb-sites.requires alicense agreement (See http://www.isb-sites.requires a license agreement (See http://www.isb-sites.requires a license agreement (See http://www.isb-sites.requires a license agreement (See http://www.isb-sites.requires alicense agreement (See http://www.isb-sites.requires agreement (See http://w
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                                                                                                                                                                                                                                                                                                              SUBUNIT: BINDS TO THE C-TERMINAL OF ATAXIN-2. TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MUSCLE
                                                                                                                                                                                                                                                                                         SIMILARITY: CONTAINS 1 RNA RECOGNITION MOTIF (RRM).
                    ; AF107203; AAF78291.1; 605104; -.
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                                                                                                             an email to license@isb-sib.ch).
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G -> D (IN REF. 2).
R -> RFR (IN REF. 2).
G -> S (IN REF. 2).
G -> S (S REF. 2).
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EMBL/GenBank/DDBJ
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Pred. No. 27;
1; Mismatches
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Matches 6
                                                                                                         *The ChiA (YhoB) protein of Escherichia coli K-12 is an endochitinase whose gene is negativel; controlled by the nucleoid-structuring protein H-NS.";

Mol. Microbiol. 35:1506-1517(2000),

Mol. Microbiol. 35:1506-1517(2000),

-I- FUNCTION: BIEUNCTIONAL ENDYME WITH LYSOZYME/CHITINASE ACTIVITY.

-I- CATALYTIC ACTIVITY: HYDROLYSIS OF THE 1,4-BETA-LINKAGES OF N-ACETYL-D-GLUCOSAMINE POLYMERS OF CHITIN.
                                                                                                                                                                                                                                                                                             CHARACTERIZATION.
STRAIN-K12 / MG1655;
MEDLINE-20223655; PubMe3-10760150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P13656;
01-JAN-1990 (Rel. 13, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
PROBABLE BIFUNCTIONAL CHITINASE/LYSOZYME PRECURSOR [INCLUDES:
                                                                                                                                                                                                                                                                                                                                                                                                                       Simpson H.D., Barras F.;
Functional analysis of the carbohydrate-binding domains of "Functional analysis of the carbohydrate-binding domains of a continuous continuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHITIN-BINDING PROPERTIES. MEDLINE=99350427; PubMed=10419961;
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CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning, sequencing, and of Escherichia coli K-12.
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MEDLINE=97426617; PubMed=9278503;
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                       CATALYTIC ACTIVITY: HYDROLYSIS OF THE 1,4-BETA-LINKAGES BETWEEN N-ACETYLLD-GLUCOSAMINE AND N-ACETYLMURAMIC ACID IN PEPTIDOGLYCAN HETEROPOLYMERS OF THE POKARYOPES CELL WALLS.
SUBCELLULAR LOCATION: PERIPLASMIC.
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397 AA;
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; E3E9060B68C79880
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the
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K., Mayhew G.F
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This SWISS-PROT entry between the Swiss Ins
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Hill O., Zucht H.D.,
Submitted (FEB-1997)
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Mammalia; Eutheria;
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DOMAIN
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                            mitted (FEB-1997) to the EMBL/GenBank/DDBJ databases.
FUNCTION: ENDOCENOUS ACTIVATOR OF INTESTINAL GUANYLATE CYCLASE.
IT STIMULATES THIS ENZYME THROUGH THE SAME RECEPTOR BINDING REGIO
AS THE HEAT-STABLE ENTEROTOXINS.
SIMILARITY: BELONGS TO THE GUANYLIN FAMILY. ALSO SIMILAR TO HEAT-
STABLE ENTEROTOXINS.
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ry is copyright. It is produced institute of Bioinformatics
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RESULT 12
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                                                                                                          the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                     Brown G.W., Hines J.C., Fisher P., Ray D.S.;
"Isolation of the genes encoding the 51-kilodalton and 28-kilodalton subunits of Crithidia fasciculata replication protein A.";
MOI. Blochem. Parasitol. 63:135-142(1994).
-I- FUNCTION: ABSOLUTELY REQUIRED FOR SIMIAN VIRUS 40 DNA REPLICATION IN VITBO. IT PARTICIPATES IN A VERY EARLY STEP IN INITIATION. RP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal.
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HSSP; Q02747; 1GNB.
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                                                            DNA replication; Nuclear SEQUENCE 258 AA; 27509
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                                                                                                                                                                                                                                                                                                                                                                                                      Crithidia fasciculata.
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Pfam; PF02058; Guanylin; 1.
PRINTS; PR00774; GUANYLIN.
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 Similarity 75.6; Conservative
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(PROTEIN A 28 KDA SUBUNIT (RP-A)
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9 mW; 739EF6D581C8B8E6 CRC64;
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RESULT 13
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01-FEB-1994 (Rel. 28,
GENE 2 PROTEIN (GP2).
                                                     STRAIN-BRISTOL N2;
MEDLINE-92168156; PubMed-1538779;
MUSTON J., Du Z., Thomas K., Wilson R., Hillier L.,
Halloran N., Green P., Thierry-Mieg J., Qiu L., Dear
Craxton M., Durbin R.K., Berks M., Metzstein M., Hawk
Ainscough R., Waterston R.;
                      "The C. elegans genome sequencing project: Nature 356:37-41(1992).
-!- SIMILARITY: STRONG, TO MAMMALIAN PHENYI
                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                          Caenorhabditis elegans.
Eukaryota; Metazoa; Nem
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "DNA sequence, structure and gene expression of mycobacteriophage L5: a phage system for mycobacterial genetics."; mol. microbiol. 7:395-405(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-93211282; PubMed-8459766; Hatfull G.F., Sarkis G.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q05230;
01-FEB-1994
                                                                                                                                                    NCBI_TaxID=6239;
                                                                                                                                                                 Rhabditidae;
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modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                "Methylcobalamin:homocysteine methyltransferase from Methanobacterium thermoautotrophicum. Identification as the mete gene product.";

Eur. J. Blochem. 263:789-796(199).

-I- FUNCTION: CATALYZES THE TRANSFER OF A METHYL GROUP FROM METHYLCOBALAMIN AND METHYLCOBINAMIDE TO HOMOCYSTEINE RESULTING IN METHYLCOBININE FORMATION.

-I- COFACTOR: ZINC; BINDS ONE MOLE PER SUBUNIT (BY SIMILARITY).

-I- COFACTOR: TERMINAL STEP IN THE DE NOVO BIOSYNTHESIS OF METHIONINE.
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01-OCT-2000
01-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 3-24, AND CHARACTERIZATION. MEDLINE=99398345; PubMed=10469143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schroeder
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NCBI_TaxID=79929;
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Archaea; Euryarchaeota; Methanobacteriales; Methanobacteriaceae;
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                                                                                                                                                                                                                    SYNTHASE FAMILY.
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METHYLCOBALAMIN:HOMOCYSTEINE METHYLTRANSFERASE (EC 2.1.1.-)
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Pred. No. 29;
2; Mismatches
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olase (Mch) from Methanobacterium
burg) and functional expression of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309
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CAA63062.1; ALT_INIT.

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Matches 5
                                                                     InterPro; IPR002629; -.
Pfam; PF01717; Methionine_synt; 1.
Transferase; Methyltransferase; Methionine_biosynthesis; Zinc.
METAL 201 201 ZINC (BY SIMILARITY).
METAL 203 203 ZINC (BY SIMILARITY).
METAL 285 285 ZINC (BY SIMILARITY).
METAL 285 285 ZINC (BY SIMILARITY).
  70
                      1 GGVLVQDG 8
GGMMVKDG
                                        Similarity
5; Conserv
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  77
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                                                  Score 32;
Pred. No.
                                      Mismatches
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Search completed: June 13, 2001, 14:21:47 Job time: 807 sec

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Result
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Listing first 45 summaries
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Perfect score:
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19876543210987654321
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                                                                                                                                                                                                                                                                                                                                                                                                           seq length:
seq length:
  length: 2000000000
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1: sp_archea:*
2: sp_bacteria
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Match Length DB
June 13, 2001, 14:20:34 ; Search time 225.85 Seconds (without alignments) . 4.152 Million cell updates/sec
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09zs84 lycopersico
005459 mycobacteri
09rx21 deinococcus
061802 caenorhabdi
09nn02 leishman1a
p97157 escherichia
004927 allium tube
068180 uncultured
091hk4 arabidopsis
099340 oryza sativ
            P96224 mycobacteri
O9rw35 deinococcus
P9495 micrococcus
O9sn11 oryza sativ
O46210 chlamydophi
O40314 medicago sa
       Q9ns20 homo sapien
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Q9jj43 mus
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ALIGNMENTS

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RESULT
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Matches 7
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Q9ZS84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO: IPR001969; -.
PFAM; PF00078; rvt; 1.
PFAM; PF00098; zf-CCHC; 1.
PROSITE; PS00141; ASP_PROTEASE; UNKNOWN_1.
Hypothetical protein.
SEQUENCE 1491 AA; 170789 MW; 7DACBC980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-CV. NIPPOMBARE;
Sasaki T., Matsumoto T., Yamamoto K.;
Sasaki T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome clone:P0026F07.";
                                                                                                                                                                           1035 GGVLMQDG 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases EMBL; AP000364; BAA81778.1; -. INTERPRO; IPR000477; -. INTERPRO; IPR001878; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Oryza. MCBI_TaxID=4530;
                                                                                                                                                                                                                                                                                                               Local Similarity 87.9
nes 7; Conservative
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                                                                 N
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                            92.7%;
                                                                                                                                                                                                                                                                                                           Score 38; DB Pred. No. 61; 1; Mismatches
PRT;
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1542 AA.
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Best Local S
Matches 7
STRAIN-H37RV;
COLOR T., Churcher T., Churcher F.,
Badcock K., Basham D., 3rown D., Chillingworth T., Connor R.,
Badcock K., Basham D., 3rown D., Chillingworth T., Connor R.,
Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd
Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
Oliver S., Osborne J., Juail M.A., Rajandream M.A., Rogers J.,
Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston
Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston
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01-JUL-1997 (TrEMBLrel. 0
01-JUN-2000 (TrEMBLrel. 1
01-JUN-2000 (TrEMBLrel. 1
HYPOTHETICAL 57.7 KDA PRO
RV3885C OR MTCY15F10.27.
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01-MAY-1999;
01-MAY-1999;
01-OCT-2000;
POLYPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Actinomycetales; Corynebacterineae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00141; ASP_FROTEASE; PROSITE; PS50013; CHROMO_2; 1.
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INTERPRO; IPRO01584; -.
INTERPRO; IPRO01969; -.
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MEDLINE=99125234; PubMed=9926411;
Parniske M., Wulff B.B., Bonnema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFAM; PF00078; rvt; 1.
PFAM; PF00665; rve; 1.
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Parniske M.,
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eddicoty; dedons; core eudicots; Asteridae; euasterids Solanales; Solanaceae; Solanum.
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SEQUENCE 606
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ABC TRANSPORTER,
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PROSITE; PS00216; SUGAR_TRANSPORT_1;
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INTERPRO; IPR001066; -.
INTERPRO; IPR001140; -.
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Bacteria; Thermus/Deinococcus
NCBI_TaxID=1299;
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Nature 393:537-544(1998).
EMBL; Z94121; CAB08089.1; -.
TUBERCULIST; Rv3885c; -.
Hypothetical protein.
SEQUENCE 537 AA; 57656 MW; 9593A4D9D46D03E5 CRC64;
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Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson A
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen J
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 M of contiguous nucleotide sequence from chromosome III of C.
                                                                                                                                                                         Murphy L., Quail M., Harris Submitted (JUL-2000) to the EMBL; AL160371; CAC00408.1;
                                                                                                                                                                                                                                                                                                                                                                          PROBABLE LM15.463.
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01-OCT-2000 (TremBLrel. 15, L
01-OCT-2000 (TremBLrel. 15, L
PROBABLE REPLICATION PROTEIN
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STRAIN-BRISTOL N2;
MEDLINE-94150718; PubMed-7906398;
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H11E01.3.
                                                                                                                                                                                                                                                                                                  Leishmania major.
Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Waterston R.;
Submitted (MAY-1998)
EMBL; AF067222; AAC17
SEQUENCE 1510 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Rhabditidae; Peloder
                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN-FRIEDLIN;
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STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 368:32-38(1994).
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                                                                                                                SEQUENCE
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    7; Conservative
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6; Conser
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250
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inae; Caenorhabditis.
                      82.9%;
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75
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                                                                                                              MW;
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1; Mismatches
Score 34; DB Pred. No. 48; 0; Mismatches
                                                                                                                                                                                                 D., Rajandream M.,
EMBL/GenBank/DDBJ
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Last annotation update)
N A 28 KDA SUBUNIT (FRAGMENT)
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                                                                                                              DB9688D2625DDBF3 CRC64;
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databases.
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Query Match
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01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-GCT-2000 (TrEMBLrel. 15, Last annotation update)
ALLIINASE (EC 4.4.1.4) (ALLIIN LYASE) (CYSTEINE SULPHOXIDE LYASE).
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01-OCT-2000
33 KDA PROTE
                                                                PROSITE;
PRODOM; I
                                                                                                             Manabe T., Saito K.;
Submitted (MAY-1997) to the EMBL/G
Submitted (MAY-1997) to the EMBL/G
-I- CATALYTIC ACTIVITY: AN S-ALKYL
SULFENATE + 2 AMINOCRYLATE.
-I- COFACTOR: PYRIDOXAL-PHOSPHATE.
                                                                                                                                                                                        Eukaryota; Viridiplantae; Embryophyta; 'Magnoliophyta; Liliopsida; Asparagales;
                                                                                                                                                                                                                                                                                                                                                                                                              enterotoxigenic Escherichia coli:
by bypassing an amber codon.";
Mol. Microbiol. 3:1685-1695(1989).
EMBL; X16944; CAA34818.1; -.
INTERPRO; IPRO00015; -.
PFAM; PF00577; Usher; 1.
                                               SEQUENCE
                                                                                           EMBL; AB004269; BAA20358.1; -. MENDEL; 16931; Alltu; 1125; 16931.
                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                           Allium tuberosum.
                                                                                                                                                                                                                                                                     004927
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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Similarity 5; Conserv
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        82.9%;
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TY: AN S-ALKYL-L-CYSTEINE S-OXIDE -
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Last annotation update)
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Mismatches
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Mismatches
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         1e+02;
                   DB 10;
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Best Local S
Matches 7
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Best Local S
Matches 7
                                                                                                                                                                                        "Structural Analysis of Arabidopsis thaliana Chromosome 3. Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases. EMBL; APO02043; BAB02613.1; -. SEQUENCE 1241 AA; 137111 MW; DD3367D1E7F07D28 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Embryophyta; Trache Magnoliophyta; eudicotyledons; core eudicots; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
P-GLYCOPROTEIN, MULTI-LRUG RESISTANCE RELATED, AB
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01-AUG-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN-COLUMBIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Arabidopsis thaliana (Nouse-ear cress).
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NON_TER
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scala D.J.,
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MEDLINE-98258028; PubMed-9595664;
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GGVLVQKG 931
                                          GGVLVQDG 8
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-1998 (TrembLrel. 07, I
-1998 (TrembLrel. 08, I
S OXIDE REDUCTASE (FRAG
                                                                                  Similarity
7; Conserv
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528 ‡
                                                                               Conservative
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AAC38341.1;
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58339 MW;
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87.58;
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                                                                                                        . 5%;
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ED, ABC TRANSPORTER-LIKE
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RESULT
P96224
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  RA Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris D. RA Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., a Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S., a Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Coliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., and the S., Barrell B.G.; Taylor K., Whitehead S., Barrell B.G.; Taylor K., Whitehead S., Barrell B.G.; Tocmplete genome sequence."; Tocmplete genome sequence."; Nature 393:537-544(1989).

NR EMBL; 283864; CAB06213.1; -. TUBERCULIST; RV3953; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                      P96224 PRELIMINARY; PR
P96224; O1-MAY-1997 (TrEMBLrel. 03, Crea
01-MAY-1997 (TrEMBLrel. 03, Last
01-JUN-2000 (TrEMBLrel. 14, Last
HYPOTHETICAL 16.2 KDA PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9SLQ0
Q9SLQ0;
01-MAY-2000
01-MAY-2000
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                1054
                                                                                                                                                                 STRAIN-H37RV;
MEDLINE-98295987;
                                                                                                                                                                                                                 SEQUENCE FROM N.A.

STRAIN-IR36; TRANSPOSON-GYPSY-TYPE RETROTRANSPOSON RIRE7;
KUMEKAWA N., Ohmido N., Fukui K., Ohtsubo E., Ohtsubo H.;
"Novel gypsy-type retrotransposon RIRE7: insertion sequence int tandem repeat sequence TrsD which localized in pelicentromeric heterochromatin region in rice.";
Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AB033235; BA89466.1; -.
                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                RV3853 OR MTCY01A6.15C
                                                                                                                                                                                                              NCBI_TaxID=1773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Polyprotein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 75. 6; Conservative
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1587
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Viridiplantae; I
Yta; Liliopsida;
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(TrEMBLrel. 13, Last sequence update)
(TrEMBLrel. 15, Last annotation update)
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                                                                                                                                                                PubMed=9634230;
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75.0%;
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                                                                                                                                                                                                                                                                                     Last annotation
                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
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                                                                                                                                                                                                                                                                                                                                    PRT;
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4.2e+02;
hes 0;
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SEQUENCE

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16235 MW;

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Best Local S
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Best Local S
Matches 7
                                                                                   P94955;
P94955;
P94955;
P14977 (Tremblrel. 03, Created)
P1-MAY-1997 (Tremblrel. 03, Last sequence update)
P1-CCT-2000 (Tremblrel. 15, Last annotation update)
P1-CT-2000 (Tremblrel. 15, Last annotation update)
P1-CT-2000 (Tremblrel. 15, Last annotation update)
P1-CCT-2000 (Tremblrel. 15, Last annotation update)
P1-CCT-2000 (Tremblel. 15, Last sequence update)
P1-CCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFAM; PF00027; CMP_binding; 1.
PFAM; PF00325; crp; 1.
PRINTS; PR00034; HTHCRP.
PROSITE; PS50042; CNMP_BINDING_3; 1.
SEQUENCE 213 AA; 23266 MW; A8200332A7C252D7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-20036896; PubMed-10567266; Mitte O., Elsen J.A., Heidelberg J.F., Hickey E.K., Peterson J.D., White O.L., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Nemathevan J.J., Lam P., McDonald L., Utterback T., Zalewski C., Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D. Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C., Fraser C.M.;
Micrococcus luteus (Micrococcus lysodeikticus).
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Micrococcineae; Micrococcaceae; Microc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AE001937; AAF10412.1; -.
TIGR; DR0834; -.
INTERPRO; IPR000595; -.
INTERPRO; IPR001808; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Deinococcus radiodurans.
Bacteria; Thermus/Deinoc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, C
01-MAY-2000 (TrEMBLrel. 13, L
01-JUN-2000 (TrEMBLrel. 14, L
NITROGEN REGULATOR, PUTATIVE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             radiodurans R1.";
Science 286:1571-1577(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Thermus/Deinococcus
NCBI_TaxID=1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9RW35
                                                                       ATP H.
                                                                                                                                                                                                                                                                                   P94955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Genome Sequence of the Radioresistant Bacterium Deinococcus radiodurans R1.":
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7; Conser
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75.0%;
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Last annotation update)
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63;
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  Micrococcus.
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Zalewski C.,
Zahmann R.D.,
                                                                                                                AND CF(1)))
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Best Local S
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                                                                                                                                                                                               PFAM; PF00319; SRF-TF; 1.
PRINTS; PR00404; MADSDOMAIN.
PROSITE; PS50066; MADS_BOX_2;
SEQUENCE 288 AA; 30675 MW;
                                                                                                                                                                                                                                                                                                        Submitted (OCT-1999) to the EMBL; AP000616; BAA85428.1; HSSP; P11746; IMNM.
                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-CV. NIPPONBARE;
Sasaki T., Matsumoto T., Yaman
"Oryza sativa nipponbare(GA3)
clone:P0514G12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oryza sativa (Rice).
Eukaryota; Viridiplantae; |
Magnoliophyta; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
SIMILAR TO MADS BOX PROTEIN AGL14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grueber G., Dose K., Nawroth T., Diel P., Cattaruzza M., Submitted (FEB-1995) to the EMBL/GenBank/DDJ databases.
-!- CATALYTIC ACTIVITY: ATP + H(2)0 - ADP + PHOSPHATE.
EMBL; X84791; CAAS9262.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. STRAIN-ATCC 4698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=1270;
[1]
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GGVVVVNDG
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                                                                                           Conservative
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                                                                                        Score 33; DB Pred. No. 90; 1; Mismatches
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Perfect score:
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
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Match
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1.296 Million cell updates/sec
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US-08-859-931A-4
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US-08-08-713-372E-11
US-08-741-327E-11
US-08-745-809A-125
US-08-774-16-301-6
US-08-774-16-9-3
US-07-903-029-6
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US-08-475-000-16
US-08-483-199-16
US-08-484-509-16
US-08-48-197-38
PCT-US93-10555-38
US-09-100-513-2
US-09-004-731-9
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292 4 9 08 327 4 08 327 4 08 327 4 08 327 4 08 552 3 08 515 1 08 15 1 08 15 2 08 15 2 08 15 3
US-09-104-731-2 US-09-104-731-2 US-09-004-731-5 US-08-749-699-5 US-08-749-699-5 US-08-1120-356-5 US-08-1120-356-5 US-08-1120-356-3 US-08-414-417-113-32 US-08-466-6808-32 US-08-466-6808-32 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73 US-09-045-632-73

ALIGNMENTS

; SEQUENCE CHARACTERISTICS: ; LENGTH: 115 amino acids ; TYPE: AMINO ACID ; TOPOLOGY: linear ; MOLECULE TYPE: protein US-07-903-029-4 GENERAL ... APPLICANT: Currie, Mara ... APPLICANT: Fok, Kam F. APPLICANT: Fok, Kam F. ITTLE OF INVENTION: Human Guanylin NUMBER OF SEQUENCES: 6 CORRESPONDENCE ADDRESS: ADDRESSE: Dennis A. Bennett, Monsanto Co., A39 STREET: 800 N. Lindbergh Blvd. us-07-903-029-4 Sequence 4, Application US/07903029 Patent No. 5969097 GENERAL INFORMATION: ATTORNEY/AGENT INFORMATION: NAME: Bennett, Dennis A. REGISTRATION NUMBER: 34,547 REFERENCE/DOCKET NUMBER: 07-2 TELECOMMUNICATION INFORMATION: TELECHONE: (314,694-5402 INFORMATION FOR SEQ ID NO: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA: APPLICATION NUMBER: UPPILING DATE: 19920623 CLASSIFICATION: 530 TELEFAX: (314)694-9009 US/07/903,029 4. 07-21(872)A Version #1.25

GGVTVQDG 27

Similarity 7; Conserv

Conservative

0

87.8%;

Score 36; DB: Pred. No. 6.5; 0; Mismatches

2;

Length 115; Indels

0,

Gaps

0;

RESULT 2 US-07-903-029-5

Sequence

Application US/07903029

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                                                                                                                                                                                                                                                      Sequence 4, Application US/08859931A Patent No. 5945510 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (314)694-9309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                        NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: peptide -903-029-5
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LENGTH: 115 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Bennett, Dennis A.
REGISTRATION NUMBER: 34,547
REFERENCE/DOCKET NUMBER: 07-21(872)A
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN BATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/903,029
FILING DATE: 19920623
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Currie, Mar
APPLICANT: Fok, Kam F
TITLE OF INVENTION: E
                                                                                               CITY: Washington, D.C. STATE: D.C.
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   OPERATING SYSTEM:
                                                                            COUNTRY:
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STATE: Missouri
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                                                              20037
                                                                                              D.C.
                                                                                                                        E: SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W., Suite 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: Dennis A. Bennett, Monsanto Co., A3SG 800 N. Lindbergh Blvd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (314)694-9009
(317) TN NO: 5:
                                                                             U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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PC-DOS/MS-DOS
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                                                                                                                                                                                    SUBSTANTIALLY PURE ZONULIN, PHYSIOLOGICAL MODULATOR OF MAMMALIAN TIGHT JUNCTIONS
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; MOLECULE TYPE: US-08-093-372-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. 5530187
                                                                                                                                                                                                                           COMPUTER: IBM PC COmpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/093,372
FILING DATE: 16-JUL-1993
CLASSIFICATION: 800
                                                                           TELEFAX: 619-546-9392
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Reiter, Stephen E.
REGISTRATION NUMBER: 31,192
REFERENCE/DOCKET NUMBER: P41
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-546-4737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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INFORMATION FOR SEQ
                                                                                                                                                                                                                                                                                                                                             COUNTRY: U.S.A.
ZIP: 90071-2921
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS: ADDRESSEE: Pretty, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-
TELECOMMUNICATION INFORMATION:
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HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION: NAME: KIT, Gordon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PITLE OF INVENTION: TRANSGENIC PLANTS CONTAINING MULTIPLE DISEASE RESISTANCE GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                               TOPOLOGY:
                                                                                                             TELEPHONE: 619-546-47
TELEFAX: 619-546-9392
                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Los Angeles
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/859,931A FILING DATE: 21 MAY 1997 CLASSIFICATION: 514
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                                                             368 amino acids
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Zhu, Qun
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Dixon, Richard A
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87.5%;
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Pred. No.
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RESULT 6
US-08-545-809A-125
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Best Local Similarity
Canhas 6; Conserv
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US-08-741-327E-11
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US-08-741-327E-11
                                                                                                                                                                                                                            Sequence 125, Application US/08545809A Patent No. 6096878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Best Local
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                                                                                                  GENERAL INFORMATION:

APPLICANT: Honjo, Tasuku

APPLICANT: Matsuda, Fumihiko

TITLE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE

TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/741,327E
FILING DATE: OCTOBER 28, 1996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: G. Kenneth Smith
REGISTRATION NUMBER: 43,135
REFERENCE/DOCKET NUMBER: 97704-E
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-213-0001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 312-913-9808
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson, P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOCTWARE: ASCII
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
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                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                               137
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CITY: Chicago
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75.0%;
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Pred. No.
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Pred. No.
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ches 0;
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78;
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Best Local Similarity
6; Conserv
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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STATE: FL.
COUNTRY: US
COUNTRY: 02110-2804
TP: 02110-2804
DEADABLE F
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OPERATING SYSTEM: MS-DOS version
SOFTWARE: WordPerfect version 5.1
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Riboflavin biosynthesis in fungi
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER:
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SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
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                                                     CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
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27 GGVVVQPG 34
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                                                                                                                              CLASSIFICATION:
                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 24-SEP
                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                            NUMBER: US/08/716,301
24-SEP-1996
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C 12 N 15/54
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Pred. No.
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DB 3;

Length 118;

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US-08-774-169-3
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       Matches
                       Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM Compatible
OPERATING SYSTEM: DDS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/774,169
FILING DATE: Herewith
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/08774169 Patent No. 5756332
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 346 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 6:
                                                                                                                        TOPOLOGY: line
                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
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LENGTH: 212 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    142 GGVLERDG 149
                                                                                                                                                    STRANDEDNESS:
                     Local
                                                                                            LIBRARY: GenBank CLONE: 473772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 3174 FOR CITY: Palo Alto
                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                     NAME: Billings, Lucy J. REGISTRATION NUMBER: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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      Similarity '5; Conserv
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                    75.68;
62.58;
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                  Score 31; DB 1;
Pred. No. 1.7e+02;
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Pred. No. 1e+02;
    Mismatches
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   1; Indels
                               Length 346;
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Gaps
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US-07-903-029-6
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Best Local Similarity bs...
6; Conservative
                                                                                                                                             PATENT NO. 6096878

GENERAL INFORMATION:
APPLICANT: Honjo, Tasuku
APPLICANT: Matsuda, Fumihiko
                                                                                                                                                                                                            Sequence 108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 6, Applic Patent No. 5969097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                   TITLE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE
                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: peptide
STALL:
COUNTRY: US
TTD: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (314)694-5402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Currie,
APPLICANT: Fok, Ka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                      ADDRESSEE: Fish a MACHINE CTRRET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 80
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                                           STATE:
                                                                                                                                                                                                                                                                                 21 GVTVQDG 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Bennett, Dennis A
REGISTRATION NUMBER: 34,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: UPPLICATION NUMBER: UPPLICATION: 530
                                                                                                                                                                                                                                                                                                          2 GVLVQDG 8
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                                                                                                                                                                                                         Application US/08545809A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (314)694-9009
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mark C.
                                                                             Richardson, P.C
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85.7%;
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Pred. No.
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COMPUTER READABLE FORM: MEDIUM TYPE: Diskette

IBM Compatible

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Best Local Similarity /J...
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FASTSED for WINDOWS VETSION 2.
CURRENT APPLICATION NUMBER: US/08/545,809A
FILLING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP93/00603
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: RING, DAVID B.
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
              TELEFAX: (510) 655-35: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 118 antio acid
                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REGISTRATION NUMBER: 36,914
                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
SEQUENCE CHARACTERISTICS:
                                                  REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-2585
                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY R440 - P.O. BOX 8097
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TELEFAX: 200154
                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                      APPLICATION NUMBER: US/08/475,000 FILING DATE: 07-JUN-1995 CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                 CITY: Emeryville
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REFERENCE/DOCKET NUMBER: 06
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                                655-3542
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75.0%;
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Pred. No.
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                                                                                                                                                                                                                               Version
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83;
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                                                                                                         US-08-484-508-16
                                                                                                                                                                                                                                                                                                         ; MOLECULE TYPE: protein US-08-483-199-16
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                                                                         Sequence 16, Application US/08484508 Patent No. 5948647
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                            Query Match
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              GENERAL INFORMATION:
APPLICANT: RING, DA
TITLE OF INVENTION:
TITLE OF INVENTION:
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APPLICANT: RING, DA
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (510) 655-354
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/483,199
FILING DATE: 07-JUN-1995
CLASSIFICATION: 4.24
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 94662-8097

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                     LENGTH: 119 amino TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                               Local Similarity
mes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
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                                            RING, DAVID B.
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                  601-2585
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ANTIGEN-BINDING SITES OF ANTIBODY MOLECULES SPECIFIC FOR CANCER ANTIGENS 18
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Pred. No.
                                                                                                                                                                                                                                              Score 30; DB
Pred. No. 83;
                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                            DB 2;
                                                                                                                                                                                                                                                              Length 119;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. 5891438 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM Compatible
OPERATING SYSTEM: PC:-DOS/MS-DOS
SOFTWARE: Patentin Felease #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION: UNMBER OF SEQUENCES:
                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
FILING DATE: 29-OCT-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REGISTRATION UMBER: 36,914
REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,508
                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Flopp Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                        ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
CITY: Los Angeles
STATE: California
                                    APPLICATION NUMBER:
                                                                                          FILING DATE:
                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                           COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 07-JUN-1995
CLASSIFICATION: 536
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94662-8097
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                                                                                                                                                                                                                                                                                                                                                                                               SILVERMAN, GREGG J.

VENTION: METHOD FOR STIMULATING PRODUCTION OF

VENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH

VENTION: VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES
                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (510)
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0 655-3542
NO: 16:
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75.08;
                                      PCT/US93/10555
                                                                                                           US/08/428,197
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PCT-US93-10555-38
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                                                           Matches
                                                                            Query Match
Best Local
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Best Local Similarity
                                                                                                                                                                                             TELEFAX: (619) 455-5110
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 123 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (619) 455-51
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1850 CITY: Los Angeles
STATE: California
                                                                                                                                                     MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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                                                           Local Similarity
les 6; Conser
                                                                                                                                                                                                                                                                                          NAME: Howells, Stacy L.
REGISTRATION NUMBER: 34,842
REFERENCE/DOCKET NUMBER: FD
                                                                                                                                                                                     TYPE:
                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/
FILING DATE: • 29-OCT-1993
                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
8 GGTLVQPG 15
                             1 GGVLVQDG 8
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                                                           Conservative
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VENTION: METHOD FOR STIMULATING PRODUCTION OF VENTION: WETHOD FOR REGION GENE FAMILY RESTRICTED VENTION: VACCINATION WITH A B-CELL SUPERANTIGEN
                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                     protein
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                                                       Score 30; DB
Pred. No. 86;
0; Mismatches
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Pred. No.
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AND CONJUGATES
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Search completed: June 13, 2001, 14:16:36 Job time: 497 sec

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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Run
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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and is derived
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Match
                                                                                                                                                                                                                                                                                                                                                                                         is the number of results predicted by chance to have a ater than or equal to the score of the result being printed,
        A_Geneseq_0401:*
1: /SIDS6/acadat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             June 13, 2001, 14:14:39; Search time 229.28 Seconds (without alignments) 1.995 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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/SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                          than or equal to the score of the result being by analysis of the total score distribution.
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                                                                  W88389
B41718
B41638
W88388
W88390
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Y79117
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Human Zneul EGF-li
Human Zneul partia
Human ORFX ORF1482
Human ORFX ORF1402
Human Zneul partia
Human Zneul partia
Human normal uteru
Human TANGO 125b (
                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                           Peptide antagonist
Peptide antagonist
Human Zneul EGF-li
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Mouse TANGO 125 (T	52	21		•	36	45
se ne	36	20	5	•	36	44
tide	11	21	8	•	36	43
æ	7	21	8	•	36	42
tide	12	21	&	•	37	41
tide	12	21	&		39	40
ptide	7	21	80		39	ω 9
de antago	10	21	8	•	39	38
ted protein	W88726	20	8		41	37
n angioge	9	22	7		41	36
mole	82	21	7		41	<u>3</u> 5
PRO217	9	21	7		41	34
PRO217	ဒ္ဌ	21	7		41	ω
o acid s	34	20	7		41	32
Hike	Y08065	20	7	•	41	<u>ນ</u>
OR	B41644	21	0		41	30
	B44241	21	9	•	41	29
Human PRO213 prote	Y41685	20	9	•	41	28
TANGO	Y52137	21	7	٠	41	27
on-associa	в01376	21	7	•	41	26
n PRO1449	B24044	21	7		41	25
PRO1330	B24043	21	7		41	24
PR021:	B24042	21	7		41	23
Amino acid sequenc	в18675	21	7		41	22
acid:	B18674	21	7	•	41	21
acid sec	в18673	21	7	•	41	20
19 pro	32	21	7	•	41	19
	2	21	7	•	41	18
-1 pr	32	21	7	•	41	17
neuro-growt	W88381	20	7	•	41	16
PR01449 pro	77	20	7		41	15
PRO1330 pro	4177	20	7	•		14
n PRO213-1 pr	¥41769	20	273	87.2	41	13
Human ORFX ORF1968	4220	21	Φ	•		12

ALIGNMENTS

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RESULT
Y79121
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatcological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                              03-AUG-1998;
                                                                                                                                                                                                                                                                                                 Y79121;
                                                                                                 28-JUL-1999;
                                                                                                                       17-FEB-2000
                                                                                                                                           WO200007609-A1.
                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                             05-JUN-2000
                                                         (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                         Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                   Y79121 standard; Peptide; 8
                                                                                                                                                                                                                                                                            (first entry)
                                                                               98US-0127815
                                                                                                 99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

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RESULT
Y79117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC (17). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor CC and human zonulins, which is believed to be critical for receptor CC recombinant DNA techniques. The peptide antagonists are used as an CC antiinflammation, where they bind to the ZOT receptor in the intestine CC and yet does not physiologically modulate the opening of TJ in the CC increased intestinal permeability and the peptide is useful for CC treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, e.g. clostridium difficile infection, e.g. clostridium difficile infection, conditions, viral gastroenteritis, parasite CC collagenous colitis, inflammatory bowel disease, disease with CC collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, correction of congenital heart disease with Fontan's operation, collicis of congenital heart disease with Fontan's operation, collicis of congenital heart disease with Fontan's operation, collicis, conserving co
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Best Local
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                                                                                                                                                                                                                                                 Synthetic
                  (UYMA-) UNIV MARYLAND BALTIMORE
                                                               03-AUG-1998;
                                                                                                            28-JUL-1999;
                                                                                                                                                       17-FEB-2000
                                                                                                                                                                                                  WO200007609-A1
                                                                                                                                                                                                                                                                                                                      Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                         gastrointestinal
                                                                                                                                                                                                                                                                                                            hypotensive; immunosuppressive; antiparasitic;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y79117 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity hes 8; Conserv
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                                                             98US-0127815
                                                                                                          99WO-US16683
                                                                                                                                                                                                                                                                                         inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 47;
Pred. No.
                                                                                                                                                                                                                                                                                       therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   red. No. 3.2e+05;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
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recombinant DNA techniques. The peptide antagonists are used as an 2C antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 2OT receptor in the intestine 2C inflammation, where they bind to the 2OT receptor in the intestine 2C increased intestinal permeability and the peptide is useful for 2C increased intestinal permeability and the peptide is useful for 2C increased intestinal conditions that cause protein losing enteropathy 2C enterocolitis, shigellosis, viral gastroenteritis, parasite 2C infestation, becterial overgrowth, whipple's disease, diseases with 2C mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, 2C collagenous colitis, inflammatory bowel disease, diseases marked by 2 lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, 2C correction of congenital heart disease with Fontan's operation, 2.5 congenital intestinal lymphangiectasia, 2C correction of congenital heart disease with Fontan's operation, 2.5 collagenous disease, eosinophilic gastroenteritis, and after surgical 2 correction of congenital heart disease with Fontan's operation, 2.5 coeliac disease, eosinophilic gastroenteritis, and immune disease, 2.5 coeliac disease, 2.5 coelia
                                                                           Query Match
Best Local
                                     Matches
                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This present sequence is that of a peptide antagonist of zonul (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do physiologically modulate the opening of mammalian tight junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 45; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-205565/18
                          Similarity 7; Conserv
                                                                                                                                                                                                                                                                                      œ
                          Conservative
                                                                           93.6%;
          Score 44; DB Pred. No. 3.2e-1; Mismatches
DB 21; Lc. 3.2e+05; 0;
                                                                                                                Length 8;
                Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        yet do not
                0,
                Gaps
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RESULT
W88384
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                                                                                 Zneu-1; neuro-growth factor-like protein; human; breast cancer; glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopoiesis; fertility; contraception; antibody; epidermal growth factor; EGF.
18-JUN-1997;
                18-JUN-1998;
                                                                                                                                Human Zneul
                                                                                                                                                                  W88384;
                                  23-DEC-1998
                                                  WO9857983-A2
                                                                    Homo sapiens
                                                                                                                                                26-APR-1999
                                                                                                                                                                                 W88384 standard;
                                                                                                                                                                                                                             L
                                                                                                                                                                                                                                     1 GGLCVQPG
                                                                                                                                                                                                   ω
                                                                                                                                                                                                                            ggvcvqpg
                                                                                                                               EGF-like
                                                                                                                                              (first entry)
                                                                                                                                                                                                                             ω
97US-0878322
               98WO-US12763
                                                                                                                                                                                 Peptide;
                                                                                                                               domain
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                                                                                                                                                                                                                                                                                                                                                                                             RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 7; Conser
                       Blumberg
Whitmore
WPI; 1999-095324/08.
                                                                                                                         18-JUN-1998;
                                                                                                                                                                                                                                      Zneu-l; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                    W88389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 6;
                                                                                    18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                           WO9857983-A2
                                                                                                                                                                                                                                                                                          Human Zneul
                                                                                                                                                                                                                                                                                                                   26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mammalian Zneul polypeptides - used to, e.g. treat Alzheimer's disease, cancer and to repopulate blood cells
                                                                                                                                                  23-DEC-1998
                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-095324/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ZYMO ) ZYMOGENETICS INC
                                                           (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GGLCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                 ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                   standard;
                         TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 53; 70pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31
                                                                                                                                                                                                                                                                                       partial polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                (first entry)
                                    Jelinek LJ,
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                                                                                   97US-0878322
97US-0050143
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                                                                                                                         98WO-US12763
                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87.2%;
87.5%;
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                                    Lehner JM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 41; DB Pred. No. 2.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sheppard
                                   Sheppard
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                                    PO
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RESULT
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Best Local S
Matches 7
                                  31-MAR-1999;
02-APR-1999;
05-APR-1999;
30-MAR-2000;
                                                                                                                                                                                                                                                                       Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antirheumatic; antithyroid; antiviral; open therapy; cancer; proliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human ORFX ORF1482 polypeptide sequence SEQ ID NO:2964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          growth factor-like domains (see also W88384-85) of Zneul. Zneul is a new neuro-growth factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This claimed polypeptide comprises amino acid residues 105-177 of the human Zneul mature protein (see W8332), i.e. the 2 epidermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New mammalian Zneul disease, cancer and
(CURA-) CURAGEN CORP
                                                                                                                      31-MAR-2000; 2000WO-US08621
                                                                                                                                                        05-OCT-2000
                                                                                                                                                                                                                                                              thrombosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B41718 standard; Protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 ggscvqpg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73
                                                                                                                                                                                                                                                             contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                    2000US-0540763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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                                                  99US-0127636.
99US-0127636.
99US-0127728.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides - used
to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 41; DB 2
Pred. No. 5.8;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 73;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B41638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                                           hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifugal; antirheumatic; antithyroid; antinnaemic; gene therapy; cancer; proliferative disorder; hypertension neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                     Homo sapiens
                                                                                                                                                                                                                                                                                      Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                 Human ORFX ORF1402 polypeptide sequence SEQ ID NO:2804.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B41638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C74446 to C77606 encode the proteins given in B40237 to B43397, which represent the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; mootropic; neuroprotective; osteopathic; anticonvulsant; antiarthritic; immunosuppressant; immunostimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                               08-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B41638 standard; Protein; 153
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11; Page 2200; 5507pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
7; Conserv
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                                                                             contraceptive
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                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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87.5%;
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Pred. No. 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 21; Length 115;
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                                                                                                                                                                                                                          hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           frame
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                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 7
                                                         Zneu-1; neuro-growth factor-like protein; human; breast cancer
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-MAR-1999;
02-APR-1999;
05-APR-1999;
30-MAR-2000;
                                                                                                                                                                                                                                  W88388 standard;
            Homo sapiens
                                                                                                                                Human Zneul
                                                                                                                                                                 26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    enhance coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C74446 to C77606 encode the proteins given in B40237 to B43397, which represent the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 11; Page 2044; 5507pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-602362/57.
N-PSDB; C75847.
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                                                                                                                                                                                                                                                                                                                    91
                                                                                                                                                                                                                                                                                                                                    1 GGLCVQPG 8
                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                               ggscvqpg 98
                                                                                                                                                                                                                                                                                                                                                                                    Similarity 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153
                                                                                                                            partial polypeptide.
                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0540763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Leach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0127636
99US-0127728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0127607
                                                                                                                                                                                                                                Protein; 158 AA
                                                                                                                                                                                                                                                                                                                                                                                                87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                              Score 41; DB
Pred. No. 11;
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                Length 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 frame
                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT
W88390
ID W88390
AC W6

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This claimed polypeptide comprises amino acid residues 1-158 of the human zneul mature protein (see w88382), i.e. the first HSMHC3M5A homology domain and first EGF-like domain of Zneul. Zneul is a new neuro-growth factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to
                                                                                                                                                                                                                                                                                   Zneu-1; neuro-growth factor-like protein; human; breast glioblastoma; pituitary adenoma; Alzheimer's disease; the nerve regeneration; haematopolesis; fertility; contraces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W88390 standard; Protein; 169 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blumberg H,
Whitmore TE;
     18-JUN-1997;
                                                                                                          23-DEC-1998
                                                                                                                                                              W09857983-A2
                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                  antibody.
                                                                                                                                                                                                                                                                                                                                                                                             Human Zneul partial polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New mammalian Zneul polypeptides - used disease, cancer and to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-095324/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-DEC-1998
                                                      18-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09857983-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GGLCVQPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ggscvqpg 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             158 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0878322
97US-0050143
     97US-0878322
                                                      98WO-US12763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US12763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          core 41; DB red. No. 11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 158;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treat Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                 therapy
                                                                                                                                                                                                                                                                                                                                            cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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RESULT
Y59870
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Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells of the treat Alzheimer's disease, cancer, to repopulate blood cells of the chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific do of Zneul and epitope-bearing portions of Zneul, can be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This claimed polypeptide comprises amino acid residues 105-273 of the human Zneul mature protein (see W88382), i.e. the 2 epidermal growth factor-like domains (see also W88384-85) and the second HSMHC3W5A homology domain of Zneul. Zneul is a new neuro-growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blumberg H, Whitmore TE;
                         N-PSDB; Z41336.
                                    WPI; 1999-591956/51
                                                                                                                                                                                                                                                                                                           19-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New mammalian Zneul disease, cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-095324/08
                                                                                                                17-APR-1998;
                                                                                                                                        17-APR-1998;
                                                                                                                                                                21-OCT-1999
                                                                                                                                                                                          DE19817946-A1
                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                 Human normal uterus tissue derived protein 33
                                                                                                                                                                                                                                                                                                                                                            Y59870 standard; Protein; 224 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1997;
                                                                                       (META-) METAGEN GES GENOMFORSCHUNG MBH.
                                                                                                                                                                                                                                                          Human; uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   raise specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                           10 ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGLCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                           expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 57-58; 70pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                           1,7
                                                             Specht
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                                                                                                                98DE-1017946
                                                                                                                                       98DE-1017946
                                                                                                                                                                                                                                           sequence tag.
                                                                                                                                                                                                                                                         cancer; treatment; anticancer; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antibodies for use e.g. in diagnostic assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptides - used to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.2%;
87.5%;
                                                             Η,
                                                             Hinzmann B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lehner JM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sheppard
                                                             Schmitt A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 169;
                                                             Pilarsky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                         gene therapy;
                                                             Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             domains
                                                             Dahl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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New nucleic acid sequences expressed in

normal uterine tissues,

and

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RESULT
Y52139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This invention describes novel cDNA sequences (A) highly expressed in cormal uterine tissue which can have anticancer and cytostatic activity cand can be used for gene therapy. (A) are used (i) for recombinant can be used for gene therapy. (A) are used (i) for recombinant can be used for gene therapy. (A) are used (i) for recombinant can be used for gene therapy and (ii) to isolate complete genes.

CC (B) are used (i) to identify agents suitable for treatment of uterine cancer; (i) directly for treating this form of cancer (including cancer; (i) directly for treating this form of cancer (including cancer) from gene therapy vectors) and (ii) for generation of capecific antibodies. (A) are identified by assembling ESTs (expressed sequence tags) from a particular tissue type before comparison of caperession patterns. This allows a significantly longer fragment of the gene to be revealed, so should reduce the number of failures associated with the fact that ESTs from different libraries may represent condifferent parts of the same unknown gene, distorting the estimated conference of occurrence in a particular tissue. Y59838-Y59892 represent protein fragments encoded by the human uterine tissue derived cDNA can be a supplementary of the supplementary that the fact that an aparticular tissue tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supplementary to the human uterine tissue derived cDNA can be a supple
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Best Local
                                                                                                                                                                                    WPI; 2000-013240/01.
N-PSDB; Z37133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TANGO 125; T125; alternative splice variant; EGF domain; antibody; secreted protein; agonist; antagonist; predictive medicine; treatment; forensic biology.
    Y52138-Y52140 are amino acid sequences of (T125). The T125 protein (Y52137) has two
                                                                  Example 4; Fig 6; 120pp; English.
                                                                                                              Novel polynucleotides and polypeptides used to modulate a variety cellular processes \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                          23-APR-1998;
23-APR-1999;
                                                                                                                                                                                                                                                       Holtzman DA
                                                                                                                                                                                                                                                                                                                                                                                                           23-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09954437-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human TANGO 125b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y52139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y52139 standard; Protein; 247
                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM BIOTHERAPEUTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       derived polypeptides, for treatment of uterine cancer identification of therapeutic agents -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGLCVQPG 8
|| ||||
65 ggscvqpg 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                          98US-0065363
99US-0065363
                                                                                                                                                                                                                                                                                                                                                                                                        00680Sn-0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of therapeutic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (T125b) amino acid sequence
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87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 15;
spliced variants epidermal growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
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    of TANGO
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                                                                                                                                   of
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RESULT 11
W88382
ID W88382
      PA XXX PA XXX PA XXX
                                                                                                                                          PR
YX
                                                                                                                                                                                                                                                                                                                                                                                                                        FTH XXX XXX
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Best Local Similarity
Matches 7; Conser
                                                                              Blumberg
Whitmore
New mammalian Zneul disease, cancer and
                                                                                                                                                        18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EGF)-like domains at amino acids 107-134 and 141-176 and is predicted to have a molecular weight of approximately 30kD. T125 is predicted to have no transmembrane domains and appears to be a secreted protein. The sequences of all variants of T125 are used in the invention to create antibodies which selectively bind to T125. The T125 polypeptide is used to modulate a variety of cellular processes. It can be used to produce fusion proteins. The protein may also be used to produce antibodies, and to identify T125 antagonists and agonists. The T125 polypucleotides, polypeptides, homologues and antibodies can be used in screening assays; predictive medicine; and methods of treatment of T125 associated disorders. The T125 polypucleotides can be used to express the protein; to detect T125 mRNA; to detect genetic alterations in the T125 gene; in forensic biology; and as a source of primers and probes.
                                                WPI; 1999-095324/08.
                                                                                                                                                                                                       18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
                                                                                                                          (ZYMO ) ZYMOGENETICS INC.
                                                                                                                                                                                                                                    23-DEC-1998
                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
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                                                                                                                                                                                                                                                                  WO9857983-A2
                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W88382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W88382 standard; Protein; 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human neuro-growth factor-like protein Zneul mature polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGLCVQPG 8
                                                                             TE;
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                                                                                           Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                       97US-0878322
97US-0050143
                                                                                                                                                                                                     98WO-US12763
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117..158
                                                                                                                                                                                                                                                                                                                            159..
                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
1..85
                                                                                                                                                                                                                                                                                                                                                                                                    /note= "hydrophilic domain (HSM1), homologous to
an HSMHC3W5A domain "
                                                                                                                                                                                                                                                                                                                                           /note=
polypeptides - used
to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                               254
                                                                                                                                                                                                                                                                                                                                                                   __"epidermal growth factor-like domain 1"
                                                                                                                                                                                                                                                                                                                                         "epidermal growth factor-like domain 2"
                                                                                                                                                                                                                                                                                            "domain HSM2 homologous to an domain"
                                                                                           Lehner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                           ,ML
                                                                                         Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
17;
to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21;
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                                                                                                                                                                                                                                                                                                            HSMHC3W5A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                          hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antirhematic; antithyroid; antithanaemic; gene therapy; cancer; proliferative disorder; hypertension, neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopatha; antiarthritic; immunosuppressant; cardiant immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
                                 02-APR-1999;
05-APR-1999;
                                                                      31-MAR-1999;
                                                                                                                                                  05-OCT-2000
                                                                                                                                                                                    WO200058473-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human ORFX ORF1968 polypeptide sequence SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B42204 standard; Protein; 265
                                                                                                             31-MAR-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 6; Page 48-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GGLCVQPG 8
|| |||||
95 ggscvqpg 10
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nes 7; Conserv
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                                                                                                           2000WO-US08621.
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                               99US-0127607.
99US-0127636.
99US-0127728.
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 41; DB Pred. No. 17; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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CC represent the human ORFX open reading frames 1 to 3161. The ORFX CE sequences have activitles such as: cytostatic; hepatotropic; vulnerary; CC antipsoriatic; antiparkinsonian; mootropic; neuroprotective; osteopathic; cc anticonvulsant; antiarthritic; immunosuppressant; immunostimulant; CC cardiant: thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; cd dermatological; immunosuppressive; antiinflammatory; antibacterial; CC antiviral; antifungal; antirheumatic; antithyroid; and antianaemic. The cc sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an CC ORFX-associated disorder. The nucleic acids can be used to express ORFX proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative cdisorders osteoarthritis, graft vs host disease, cardiovascular disease, storage, systemic lupus erythematosus, severe combined immunodeficiency (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive.
    RESULT
Y41769
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10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                Homo
                                                                                                                                                                                                        probe; blood coagu
secreted protein;
                                                                                                                                                                                                                                           Human;
                                                                                                                                                                                                                                                                                                      07-DEC-1999
                                                                                                                                                                                                                                                                                                                                    Y41769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel nucleic acids and peptides derived from open reading frame X, useful for treating e.g. cancers, proliferative disorders,
                                                                                         08-MAR-1999;
                                                                                                                                                    WO9946281-A2
                                                                                                                                                                                                                                                                                                                                                               Y41769 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shimkets RA,
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                                                                                                                       16-SEP-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                        114
                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGLCVQPG 8
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114 ggscvqpg 12
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                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                           PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         265
                                                                                                                                                                                                                         EST; expressed sequence tag; PCR primer; hybridisation; d coagulation disorder; cancer; cellular adhesion disord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                        121
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             98US-0077450.
98US-0077632.
98US-0077641.
98US-0077649.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ą,
                                                                                                                                                                                                                                                                       protein sequence.
                                                                                        99WO-US05028
                                                                                                                                                                                                                                                                                                                                                               Protein; 273
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 41; DB Pred. No. 18; 0; Mismatches
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                                                                                                                                                                                                            protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 265;
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                                                                                                                                                                                                                            disorder;
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0;

98US-0079656 98US-0079664 98US-0079689 98US-0079728 98US-0079728 98US-0079786 98US-0079786 98US-0079920 98US-0080105 98US-0080107 98US-00801155

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Best Local S
Matches 7
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 233891 to 234338, and Y41685 to Y41774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18 MAY 1998
22 MAY 1998
28 MAY 1998
28 MAY 1998
28 MAY 1998
30 JUL 1998
31 SEP 1998
                                                                                                                                                                                                                                        Y41770;
                                                       08-MAR-1999;
                                                                                                                                                   secreted
                                                                                                                                                             probe;
                                                                                                                                                                       Human;
                                                                                                                                                                                           Human PRO1330 protein sequence.
                                                                                                                                                                                                                    07-DEC-1999
                                                                                                                                                                                                                                                              Y41770 standard;
                                                                                                                                                                                                                                                                                                                   1 GGLCVQPG
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114 ggscvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular adhesion disorders -
                                                                              16-SEP-1999
                                                                                                     WO9946281-A2
                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-551358/46.
N-PSDB; Z34311.
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                                                                                                                                                protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                         273
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                                                                                                                                                           EST; expressed sequence tag; PCR primer; hybridisation; coagulation disorder; cancer; cellular adhesion disorder;
                                                                                                                                                                                                                 (first entry)
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98US-00863414.

98US-00864130.

98US-0086430.

98US-0087108.

98US-0087108.

98US-0087108.

98US-0087308.
98US-0077450.
98US-0077632.
98US-0077641.
98US-0077649.
                                                                                                                                                                                                                                                                                                                                                                                                                         AΑ;
                                                       99WO-US05028
                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                transmembrane protein.
                                                                                                                                                                                                                                                                                                                                                                            87.2%;
87.5%;
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                                                                                                                                                                                                                                                                273
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Pred. No.
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                                                                                                                                                                                                                                                              AA.
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18;
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                                                                                                                                                                                                                                                                                                                                                                                    Length 273;
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0;

13-MAR-1998 20-MAR-1998 20-MAR-1998 20-MAR-1998 20-MAR-1998 20-MAR-1998 20-MAR-1998 20-MAR-1998 27-MAR-1998 27-MAR-1998 27-MAR-1998 31-MAR-1998 31-MAR-1998

98US-0080327 98US-0080334 98US-0081071 98US-00811071 98US-00811203 98US-00811203 98US-0081825 98US-0081825 98US-0081825 98US-0082566 98US-0082760 98US-0082761 98US-0082761 98US-0083325 98US-0083465 98US-0083465 98US-0083465 98US-00846441 98US-0084627 98US-0084629 98US-0084629 98US-0084639 98US-0084639 98US-00845593 98US-00845593 98US-0085573 98US-0085582 98US-0085582

Baker KP,

Chen Ç

their polynucleotides, cancers and cellular

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12-MAR-1998
17-MAR-1998
20-MAR-1998
20-MAR-1998
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21-MAR-1998
27-MAR-1998
  98US-0077791
98US-0077810
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98US-0078936
98US-0079856
98US-0079663
98US-0079689
98US-0079689
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Best Local S
Matches 7
  10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
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11-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
28-MAY-1998
28-MAY-1998
30-JUL-1998
11-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 23891 to 234338, and v41685 to y41714 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                               Human; PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disord secreted protein; transmembrane protein.
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N-PSDB; Z34312.
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98US-0077450.
98US-0077632.
98US-0077641.
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DB 18;

20; 1;

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PR 12-MAR-1998; 98US-0077649.
PR 12-MAR-1998; 98US-0077091.
PR 13-MAR-1998; 98US-0077091.
PR 13-MAR-1998; 98US-0078096.
PR 20-MAR-1998; 98US-0078996.
PR 20-MAR-1998; 98US-0079896.
PR 20-MAR-1998; 98US-0079920.
PR 20-MAR-1998; 98US-0079664.
PR 20-MAR-1998; 98US-00801.05.
PR 30-MAR-1998; 98US-00801.05.
PR 30-MAR-1998; 98US-00801.05.
PR 30-MAR-1998; 98US-00801.07.
PR 31-MAR-1998; 98US-0081.07.
PR 31-MAR-1998; 98US-0081.07.
PR 31-MAR-1998; 98US-0081.07.
PR 31-MAR-1998; 98US-0081.07.
PR 31-MAR-1998; 98US-0083.33.
PR 31-MAR-1998; 98US-0084.44.
PR 23-APR-1998; 98US-0084.64.
PR 23-APR-1998; 98US-0084.64.
PR 23-APR-1998; 98US-0084.63.
PR 31-MAR-1998; 98US-0085.69.
PR 31-MAR-1998; 98US-0085.69.
PR 31-MAR-1998; 98US-0085.69.
PR 31-MAR-1998; 98U
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Query Match
Best Local S
Matches 7
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15 -MAY -1998;
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22 -MAY -1998;
22 -MAY -1998;
22 -MAY -1998;
22 -MAY -1998;
28 -MAY -1998;
28 -MAY -1998;
30 -JUL-1998;
31 -SEP-1998;
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DB; Z34313.
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         Similarity 7; Conserv
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Oy 1 GGLCVQPG 8

Db 114 99scvqpg 121

Search completed: June 13, 2001, 14:14:39

Job time: 380 sec
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Gapop 10.0 , Gapext 0.5
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Query Match
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Matches 6; Conserv

Conservative

83.0%; 75.0%;

Score 39; DB Pred. No. 7; 1; Mismatches

рв 7; ۲, 1;

Length 378; Indels

0;

Gaps

0;

RESULT 2 B59180 Wht inhibitory factor-1 - zebra fish C;Species: Brachydanio rerio (zebra fish) C;Date: 18-Feb-2000 #sequence_revision 18-Feb-2000 #te C;Accession: B59180 R;Hsieh, J.C.; Kodjabbachian, L.; Rebbert, M.L.; Rattne Nature 398, 431-436, 1999 A;Title: A new secreted protein that binds to Wnt prot A;Reference number: A59180; MUID:99215557 A;Accession: B59180 A;Status: preliminary; not compared with conceptual tr A;Molecule type: mRNA A;Residues: 1-378 <hsi> A;Cross-references: GB:AF122925; NID:94585375; PIDN:AA C;Genetics: A;Gene: WIF-1</hsi>	Qy 1 GGLCVQPG 8 Db 221 GGLCVTPG 228	Query Match 87.2%; Score 41; DB Best Local Similarity 87.5%; Pred. No. 2.9 Matches 7; Conservative 0; Mismatches	RESULT 1 A59180 Wht inhibitory factor-1 - human C;Species: Homo sapiens (man) C;Decies: Homo sapiens (c) C;Accession: A59180 R;HSieh, J.C.; Kodjabachian, L.; Rebbert, M.L. Nature 398, 431-436, 1999 A;Title: A new secreted protein that binds to A;Reference number: A59180; MUID:99215557 A;Accession: A59180 A;Status: preliminary; not compared with conce A;Molecule type: mRNA A;Residues: 1-379 <hsi>A;Cross-references: GB:AF122922; NID:94585369;</hsi>	30 34 72.3 98 2 \$26929 31 34 72.3 120 2 \$44111 32 34 72.3 196 2 H81681 33 34 72.3 196 2 T44578 34 72.3 302 2 T44578 35 34 72.3 302 2 T44578 36 34 72.3 403 2 E59873 37 34 72.3 403 2 E59873 38 34 72.3 403 2 E69873 39 72.3 467 2 H83168 39 72.3 467 2 H83196 40 34 72.3 861 2 A48825 41 34 72.3 861 2 A48825 42 34 72.3 2531 2 A46019 43 34 72.3 2555 2 A40043 44 33 70.2 145 2 H69051 45 33 70.2 324 2 \$61447
eb-2000 #text_change 18-Feb-2000 .L.; Rattner, A.; Smallwood, P.M.; Samos, to Wnt proteins and inhibits their activit nceptual translation 75; PIDN:AAD25405.1; PID:g4585376		DB 2; Length 379; 2.9; ches 1; Indels 0; Gaps 0;	Feb-2000 #text_change 18-Feb-2000 M.L.; Rattner, A.; Smallwood, P.M.; Samos, s to Wnt proteins and inhibits their activit conceptual translation 5369; PIDN:AAD25402.1; PID:g4585370	Ig heavy chain V r Ig heavy chain V-D hypothetical prote maf protein TC0628 C-5 ketoreductase ORF MSV313 hypothe cell-dyvision prot glutamate dehydrog hypothetical prote glycerol kinase pA Notch homolog Motc DnaK-related protein notch-1 protein - notch protein homo heterodisulfide re cellulase (EC 3.2.

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A; Residues: 1-2
A; Cross-referen
A; Experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein - Rhodobacter capsulatus C;Species: Rhodobacter capsulatus C;Species: Rhodobacter capsulatus C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 C;Accession: T10512 R.Larimer, F.W. submitted to the EMBL Data Library, November 1995 A;Description: Sequence and expression of the pento: A;Reference number: Z17063
A;Title: Sequencing and functional analysis of a 32 560 bp segment on the left A;Reference number: S39824; MUID:94205266 A;Accession: S39830 A;Molecule type: DNA A;Residues: 1-423 <SCH>
                                                                             C;Accession: S39830; S45/73; S5/351
R;Scherens, B; el Bakkoury, M.; Vierendeels, F.; Dubois, Yeast 9, 1355-1371, 1993
Yeast 9, 1355-1371, 1993
                                                                                                                                    C;Species: Saccharomyces cerevisiae
C;Date: 16-Dec-1993 #sequence_revision 09-Sep-1994 #text_change 29-Oct-1999
C;Accession: S39830; S45793; S37331
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A; Status: prelimina
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A;Experimental source: strain K-12, substrain MG1655
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-278 <BLAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Escherichia coli
C;Datc: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 08-Oct-1999
C;Datc: 16-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 08-Oct-1999
C;Accession: E65020
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                                                                                                                                                                                                   hypothetical protein YBLO58w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein YBLO509; hypothetical p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Molecule type: DNA
|Molecule type: DNA
|Residues: 1-250 <LAR>
|Residues: 1-250 <LAR>
|Cross-references: EMBL:U23145; NID:g2564972;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Status: preliminary; translated
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nes 6; Conserv
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85.7%;
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75.0%;
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Pred. No.
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Pred. No.
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                                                                                                                 Messenguy, F.
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C; Geneti
A; Gene:
   R;Kruse, U.; Sippel,
J. Mol. Biol. 238, 8
A;Title: The genes f
                                                    A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-241 <KRU>
A;Cross-references: EMBL:X68153; NID:g63665; PID:g63666
                                                                                                                                                                                               C;Species: Gallus gallus (chicken)
C;Date: 03-May-1994 #sequence_revi
C;Accession: S26615; S45566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-427 <STO>
A; Cross references: GB:
                                                                                                                              A; Reference number: A; Accession: S26615
                                                                                                                                             submitted to the EMBL Data A; Reference number: S26614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           adman, S.; Yuan, Y.; Brody, .; Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
                                                                                                                                                                                    R; Kruse,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Reference number: A82950; A; Accession: D83347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an A; Reference number: A82950; MUID: 20437337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:Z35819; NID:g536089; PIDN:CAA84878.1; A;Experimental source: strain S288C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-423 < DUB>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:Z23261; NID:g313733; PIDN:CAA80789.1; PID:g313740 A;Experimental source: strain S288C R;Dubois, E.; El Bakkoury, M.; Glansdorff, N.; Messenguy, F.; Pierard, A.;
                                                                                                                                                                                                                                                        nuclear factor I-A3 - chicken
                                                                                                                                                                                                                                                                            S26615
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Best Local
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les 6; Conserv
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 860-865, 1994 for transcription
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                                                                                                                                                                                                     #sequence_revision 27-Jan-1995
; S45566
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87.5%;
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75.0%;
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     factor
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19;
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nuclear factor I (clone B5) - mouse (fragment)
C;Specles: Mus musculus (house mouse)
C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 08-Dec-2000
C;Accession: E36596
R;Inoue, T.; Tamura, T.; Furuichi, T.; Mikoshiba, K.
J. Biol. Chem. 265, 19065-19070, 1990
A;Title: Isolation of complementary DNAs encoding a cerebellum-enriched nuclear factor A;Reference number: A36596; MUID:91035434
A;Accession: E36596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein Rv0263c - Mycobacterium tuberculosis (strain H37RV)
C; Species: Mycobacterium tuberculosis
C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 21-Jul-2000
C; Accession: B70627
R; Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Go; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holr
Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.
Rature 393, 537-544, 1998
A; Authors: Squres, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A; Title: Deciphering the biology of Mycobacterium tuberculosis from the complete
A; Reference number: A70500; MUID:98295987
A; Accession: B70627
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A; Accession: S45566
A; Status: preliminary; nucleic acid sequence
A; Molecule type: mRNA
A; Residues: 2-202 <KR2>
A; Cross-references: EMBL:X68153
C; Superfamily: human nuclear factor I
                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-309 < INO>
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Best Local Similarity
Fatches 5; Conserv
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C; Superfamily:
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                                                                                                                                           C; Superfamily: human nuclear factor
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A; Experimental source: strain 1
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Matches 6
                              Query Match 74.5%; Score 35; Best Local Similarity 100.0%; Pred. No. Matches 6; Conservative 0; Mismatc
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26;
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                                                                          Length 309;
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R:Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamiin, N.; Hu Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998

A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the comple
                                                                                                                                      probable lppZ protein - Mycobacterium tuberculosis (strain H37RV)
c;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 22-Oct-1999
C;Accession: A70856
                                                                                                                                                                                                                                RESULT
A70856
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12

complete

geno

Holroyd,

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nuclear factor I (clone B6) - mouse
C;Species: Mus musculus (house mouse)
C;Date: 12-Apr:191  #sequence_revision 12-Apr:1991  #text_change 08-Dec-2000
C;Accession: F36596
R;Inoue, T.: Tamura, T.; Furuichi, T.; Mikoshiba, K.
J. Biol. Chem. 265, 19065-19070, 1990
A;Title: Isolation of complementary DNAs encoding a cerebellum-enriched nucl
A;Reference number: A36596; MUID:91035434
                                                                                                                                                                                                                                                                                                 R:Osada, S.; Daimon, S.; Ikeda, T.; Nishihara, T.; Yano, J. Biochem. 121, 355-363, 1997
A;Title: Nuclear factor 1 family proteins bind to the sil A;Reference number: JC5428; MUID:97244636
A;Accession: PC4293
                                                                                                                                                                                                                                                                                                                                                                                                nuclear factor 1 family protein A2 - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jul-1997 #sequence_revision 17-Sep-1997 #text_change 08-Dec-2000
C;Accession: PC4293
                                                                                                                                                                   ferase P gene expression.
C;Superfamily: human nuclear factor I
                                                                                                                                                                                                      C; Comment: This protein is a dominant form of nuclear
                                                                                                                                                                                                                        A;Cross-references: DDBJ:D78020; NID:g1041037; A;Experimental source: liver
                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1:357 <OSA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:D90176; C;Superfamily: human nuclear fa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-347 <INO>
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Best Local S
Matches 6
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Best Local Similarity
Matches 6; Conser
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 19
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                     2 GLCVQP 7
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GLCVQP
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24
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llarity 100.0%;
Conservative
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ilarity 100.0%;
Conservative
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Pred. No.
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Pred. No.
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                                                                                          38;
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37
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                                                                                                                                                                                                          factor 1
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                                                                                                                                                                                                        proteins.
                                                                                                                                                                                                                                          PID:g1041038
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                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-431 < KRU>
                                                                                                                                                                                                                                                                                 C;Accession: S20065.
R;Kruse, U.; Qian, F.; Sippel, A.E.
Nucleic Acids Res. 19, 6641, 1991
A;Title: Identification of a fourth nuclear factor I gene in chicken by cDNA cloning: NF
A;Reference number: S20065; MUID:92093631
                                                                                                                                                                                                                                  A; Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                           N;Alternate names: transcription factor x
C;Species: Gallus (chicken)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 08-Dec-2000
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C;Species: Gallus gallus (chicken)
C;Date: 28-Oct-1994 *sequence_revision 28-Oct-1994 *text_change 08-Dec-2000
C;Accession: $45569; $26618
R;Kruse, U; Sippel, A.E.
J. Mol. Biol. 238, 860-865, 1994
A;Title: The genes for transcription factor nuclear factor I give rise to corresponding A;Reference number: $45565; MUID:94238700
A;Accession: $45569
A;Accession: $45569
A;Status: preliminary; nucleic acid sequence not shown
A:Molecule type. MENA
                                                                                                                                                                                                                                                                    A; Accession: S20065
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A;Residues: 1-386 <KRU>
A;Cross-references: EMBL:X68156; NID:g63671; PIDN:CAA48259.1; PID:g63672
C;Superfamily: human nuclear factor I
                                                                                                                                                                                                                                                                                                                                                                                                                                                 nuclear factor I-X - chicken
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A;Accession: A70856
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-373 <COL>
A;Cross-references: GB:AL021287; GB:AL123456; NID:93261508; PIDN:CAA16091.1; PID:e123775
A;Experimental source: strain H37Rv
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                                      Query Match
Best Local Similarity
Matches 6; Conserv
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Best Local Similarity 100.0%;
Matches 6; Conservative
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Best Local Similarity
Matches 5; Conserv
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2 GLCVQP 7
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Pred. No.
                                  Mismatches
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Query Match
Best Local Similarity
"hes 6; Conserv
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A,Molecule type: mRNA
A,Residues: 1-433 <ROU>
A;Cross-references: EMBL:Z34463; NID:g607204; PID:g607205
C;Superfamily: human nuclear factor I
                                                                                                                                                                                                                                                                                                                                                          RESULT 15
S51773
S1773
S1773
S1773
S1773
C;Date: 07-May-1995 #sequence_revision 03-Nov-1995 #text_change 08-Dec-2000
Search completed: June 13, 2001, 14:10:47 Job time: 148 sec
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C:Accession: S51773

R:Roulet, E.; Armentero, M.; Dreyer, C.; Mermod, N.; Wahll, W.
submitted to the EMBL Data Library, June 1994

A:Description: DNA binding activity of xenopus nuclear factor X is negatively regulat
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152 GLCVQP 157
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Maximum DB
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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length: 2000000000
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Match
  PCT-US01-05825A-17
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Gapop 10.0 , Gapext 0.5
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   DB
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DRPL_RAT
DRPL_HUMAN
YLAO_BACSU
DHE2_PEPAS
GLPK_PEPAS
GLPK_PEPAS
NTC1_HUMAN
NTC1_MOUSE
NTC3_MOUSE
NTC4_MOUSE
NTC4_MOUSE
NTC4_MOUSE
NTC4_MOUSE
NTC4_MOUSE
NTC4_RAT
GL2M_ARATH
GL2M_RAT
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WIF1_MOUSE
EUTJ_ECOLI
EUTJ_SALTY
SHP1_YEAST
NFIX_CHICK
NFIX_HUMAN
NFIX_MCSAU
NFIX_MOUSE
NFIL_RAT
                                                                                                                                                                                                 NFIA_CHICK
GNT3_HUMAN
GNT3_MOUSE
 TEL2_HUMAN
Z212_HUMAN
Z212_HUMAN
P53_CAVPO
ALAT_HUMAN
ALAT_RAT
PHR1_SINAL
                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                          P17923 gallus gall
Q09327 h beta-1,4-
Q10470 m beta-1,4-
902527 r beta-1,4-
P54258 ratus morv
P54259 homo sapien
007639 bacillus su
                                                                                                                                                                                                                             Q90932 gallus gall
Q14938 homo sapien
P13623 mesocricetu
P70257 mus musculu
P09414 rattus norv
 P54259
P28939
P28939
P461390
P46531
Q001553
Q001778
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Q9wual mus musculu
P77277 escherichia
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3 homo sapien
6 homo sapien
6 cavia porce
8 homo sapien
9 rattus norv
5 sinapis alb
                                                                                                                                                                                                                                                          4 salmonella
3 saccharomyc
2 gallus gall
8 homo sapien
                                                                                                                              peptostrept
pseudomonas
homo sapien
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saccharomyc
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arabidopsis
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ALIGNMENTS

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Mammalia; Eutheria; Rodentia;
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                                                            Aiba H., Baba T., Fujita K., Hayashi K., Honjo A., Horiuchi T., Ixemoto K., Inada T., Isono K., Isono S., Itoh T., Kanai K., Kasai H. Kashimoto K., Kim S., Kimura S., Kitagawa M., Kitakawa M., Makino K., Masuda S., Miki T., Mizobuchi K., Mori H., Motomura K., Makamura Y., Mashimoto H., Nishio Y., Oshima T., Saito N., Sampei G., Seki Y., Tagami H., Takemoto K., Wada C., Yamamoto Y., Yano M.; Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
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STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V.,
Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.,
Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
Mau B., Shao Y.;
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                                                                                                                                                                                                                                                                                                  Kofoid E.C., Rappleye C.A., Stojiljkovic I., Roth J.R.; "The 17-gene ethanolamine (eut) operon of Salmonella typhimurium encodes five homologues of carboxysome shell proteins."; J. Bacteriol. 181:5317-5329(1999).
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STRAIN-ATCC 14028;
MEDLINE-95173114; PubMed-7868611;
Stoj11jkovic I., Bacumler A.J., Heffron F.;
Tethanolamine utilization in Salmonella typhimurium: n sequence, protein expression, and mutational analysis cchB eutE eutJ eutG eutH gene cluster.";
J. Bacteriol. 177:1357-1366(1995).
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email to license@isb-sib.ch).
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RESULT 6
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SHP1_YEAST
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EMBL; Z35819; CAA84878.1; -.
PIR; S39830; S39830.
PIR; S37331; S37331.
SGD; S0000154; SHP1.
InterPro; IRR001012; -.
                                           U1-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last seguence update)
30-MAY-2000 (Rel. 39, Last annotation update)
NUCLEAR FACTOR 1/X (NFI-X) (NF-I/X) (CCAAT-BOX
FACTOR) (CTF) (TGGCA-BINDING PROTETN')
NFTX
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Pfam; PF00789;
SEQUENCE 423
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P34223;
             Gallus gallus (Chicken).
Eukaryota; Metazoa; Chor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   progression.";
Mol. Cell. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhang S., Guha S., Volkert F.C.;
"The Saccharomyces SHP1 gene, which encodes a regulator phosphoprotein phosphatase 1 with differential effects cometabolism, meiotic differentiation, and mitotic cell cymetabolism,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scherens B., el Bakkoury M., Vierendeels F., Dubois E., "Sequencing and functional analysis of a 32,560 bp segme left arm of yeast chromosome II. Identification of 26 op frames, including the KIP1 and SEC17 genes."; Yeast 9:1355-1371(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SHP1 OR YBL058W OR YBL0509 OR YBL0515.
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina;
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01-NOV-1995
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Zhang S., Guha S., Volkert F.C.;
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European Bioinformatics Institute. Them
by non-profit institutions as long in the statement is not removed.
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 Metazoa; Chordata; a; Aves; Neognathae;
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 Craniata; Ver ; Galliformes;
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Vertebrata; Euteleostomi;
mes; Phasianidae; Phasianinae;
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DE FACTOR
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Best Local S
Matches 6
                                                                                                                                                                                                                                      Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                NFIX_HUMAN STANDARD; PRT; 441 AA 014938; 012859; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 01-OCT-2000 (Rel. 40, Last annotation updat NUCLEAR FACTOR 1/X (NFI-X) (NF-I/X) (CCAAT-FACTOR) (CTF) (TGGCA-BINDING PROTEIN).
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NCBI_TaxID=9031;
[1]
                     Qian F., Kruse
                                   SEQUENCE OF 19-228 FROM N.A. MEDLINE=96070434; PubMed=7590749;
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PROSITE; PS00349; CTF_NFI; 1.

Transcription regulation; DNA replication; DNA-binding; Activator; Nuclear protein; Multigene family; Alternative splicing.

Nuclear Protein; Multigene family; Alternative splicing.

SEQUENCE 431 AA; 46903 MW; 83989A0292E74D6C CRC64;
                                                                                        Nucleic
                                                                                                                                                                      MEDLINE-95023136; PubMed-7937100;
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   lian F., Kruse U., Lichter p., Si
Chromosomal localization of the
                                                                                                                        tactor
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Kruse U. Qlan F., Sippel A.E.;
"Identification of a fourth nuclear factor I
cloning: NFI-X.";
Nucleic Acids Res. 19:6641-6641(1991).
-I- FUNCTION: CTF/NF-I RECOGNIZE AND BIND THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro;
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TTGGCNNNNNGCCAA-3' PRESENT IN VIRAL AND CELLULAR PROMOTERS AND IN
THE ORIGIN OF REPLICATION OF ADENOVIRUS TYPE 2. THESE PROTEINS !
INDIVIDUALLY CAPABLE OF ACTIVATING TRANSCRIPTION AND REPLICATION
SUBGUNIT: BINDS DNA AS AN HOMODIMER.
SUBCLULAR LOCATION: NUCLEAR.
ALIERNATIVE PRODUCTS: DIFFERENT FORMS OF CTF/NF-1 CAN BE PRODUC!
BY DIFFERENTIAL SPLICING OF THE SAME GENE.
SIMILARITY: BELONGS TO THE CTF/NF-1 FAMILY.
                                                                                                    cell-type
                                                                        , Liu Y., Bernard H.U.; ng and functional analysis of spliced isoforms of human nuclear I-X: interference with transcriptional activation by NFI/CTF ell-type specific manner."; c Acids Res. 22:3825-3833(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X61225; CAA43537.1; -. Pro; IPR000647; -.
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an email to license@isb-sib.ch).
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Pred. No.
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                 Sippel A.E.;
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(CCAAT-BOX BINDING TRANSCRIPTION
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RESULT 8
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Matches 6
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the promoter for 3-hydroxy-3-methylglutaryl-coenzyme A reducta
Proc. Natl. Acad. Sci. U.S.A. 85:8963-8967(1988).

1- FUNCTION: CTF_VR-I RECOGNIZE AND BLID THE PALLINDROMIC SEQU
TTGGCNUNNNGCCAA-3'PRESENT IN VIRAL AND CELLULAR PROMOTERS
THE ORIGIN OF REPLICATION OF ADENOVIRUS TYPE 2. THESE PROT
INDIVIDUALLY CAPABLE OF ACTIVATING TRANSCRIPTION AND REPLI-
1- SUBUNIT: BINDS DNA AS AN HOMODIMER.
1- SUBUNIT: BINDS DNA AS AN HOMODIMER.
1- SUBCELLULAR LOCATION: NUCLEAR.
1- ALTERNATIVE PRODUCTS: DIFFERENT FORMS OF CTF/NF-I CAN BE P
BY DIFFERENTIAL SPLICING OF THE SAME GENE.
                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE-89057859; PubMed-3194401;

Gil G. Smith J.R., Goldstein J.L.

Brown M.S., Osborne T.F.;
                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                         FACTOR) (CTF) (TGGCA-BINDING PROTEIN).
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                                                                                                                                                                                                             NCBI_TaxID=10036;
                                                                                                                                                                                                                            Mesocricetus
                                                                                                                                                                                                                                                                  Mesocricetus
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PROSITE; PS00349; CTF_NFI; 1.
Transcription regulation; DNA replication; DNA-binding; Activator;
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VARSPLIC 318 359 MISSI
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ilarity 100.0%;
Conservative
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Chordata; Craniata; Vert
Rodentia; Sciurognathi;
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MISSING (IN ISOFORM NET-X2).
Y -> F (IN REF. 2).
Y 304AFF8993B9668E CRC64;
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Pred. No.
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   the Europuse by modified
                                                                                                                                                                                Chaudhry A.Z., Lyons G.E., Gronostajski R.M.;
Chaudhry A.Z., Lyons G.E., Gronostajski R.M.;
Expression patterns of the four nuclear factor I genes during mouse embryogenesis indicate a potential role in development.";
Dev. Dyn. 208:313-325(1997).
-I- FUNCTION: CTF/NF-I RECOGNIZE AND BIND THE PALINDROMIC SEQUENCE 5'-
TTGGCUNNINGCCAA-3' PRESENT IN VIRAL AND CELLULAR PROMOTERS AND IN
THE ORIGIN OF REPLICATION OF ADENOVIRUS TYPE 2. THESE PROTEINS ARE
INDIVIDUALLY CAPABLE OF ACTIVATING TRANSCRIPTION AND REPLICATION.
-I- SUBGUITT: BINDS DNA AS AN HOMODIMER.
-I- SUBCELLULAR LOCATION: NUCLEAR.
-I- ALTERNATIVE PRODUCTS: DIFFERENT FORMS OF CTF/NF-I CAN BE PRODUCED
BY DIFFERENTIAL SPLICING OF THE SAME GENE.
-I- SIMILARITY: BELONGS TO THE CTF/NF-I FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN-NIH SWISS;
Ebel T.T., Sippel A.E.;
Submitted (SEP-1996) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
Mus musculus (Mouse).
Mus musculus (Mouse).
Metazoa; Chordata;
Metazoa; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last anotation update)
NUCLEAR FACTOR 1/X (NFI-X) (NF-I/X) (CCAAT-BOX BINDING FACTOR) (CTF) (TGGCA-BINDING PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000647; ...

Pfam; PF00859; CTF_NUT; 1.

PROSITE; PS00349; CTF_NET; 1.

Transcription regulation; DNA replication; DNA-binding; Activator; Nuclear protein; Multigene family; Alternative splicing.

SEQUENCE 441 AA; 48837 MW; 38CB7326EDC92859 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSFAC; T00610; -. TRANSFAC; T01036; -. InterPro; IPR000647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; J04123; AAA370
PIR; B31256; B31256.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-BALB/C;
MEDLINE-97209336; PubMed-9056636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFIX_MOUSE
P70257; P7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or send
                                                                                                     between
                                                                                                                               This SWISS-PROT entry is copyright.
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                                                                 European
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLCVQP 165
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JSE STANDARD;
P70258; 008519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6;
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                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OF 4-441 FROM
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                                                Bioinformatics Institute.
                                                                                           ROT entry is copyright. It is produced through a collaboration Swiss Institute of Bioinformatics and the EMBL outstation -
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                                institutions
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
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   as long
t removed.
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26;
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; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSCRIPTION
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM THE STRAIR SPRAGUE-DAWLEY: TISSUE-LIVE STRAIR-SPRAGUE-DAWLEY: TISSUE-LIVE STRAIR SPRAGUE-19903; PubMed-8832903; MEDLINE-96429753; PubMed-8832903; Stampfli S.,
                                                                                                                                                                                 MEDLINE-89030607; PubMed=3053160; Paonessa G., Gounari F., Frank R., Corte Paonessa G. anna-tinke DNA-binding of the corresponding cDNA."; EMBO J. 7:3115-3123(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (R
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFIL_RAT STANDARD; PRT; 509 AA. P09414; Q63782; Ol-MAR-1989 (Rel. 10, Created) Ol-NOV-1997 (Rel. 35, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update) NUCLEAR FACTOR 1 (NF-I) (CCAAT BOX-BINDING TR. (TGGCA-BINDING PROTEIN) (NFI-A).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR00647; -.

Pfam; PF00859; CTF_NFI; 1.

PROSITE; PS00349; CTF_NFI; 1.

Transcription regulation; DNA replication; DNA-binding; Nuclear protein; Multigene family; Alternative splicing VARSPLIC 320 MISSING (IN ISOFORM NEIX2)

SEQUENCE 441 AA; 48867 MW; FOFCB00C2CD52480 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Y07688; CAA68952.1; -.
EMBL; Y07689; CAA68953.1; -.
EMBL; U57636; AAB49931.1; -.
MGD; MGI:97311; Nfix.
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                                                                                                                                                                                                                                                                                                       TISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "A complex interplay of positive and for the different transcriptional act Mol. Biol. Rep. 21:147-158(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID-10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=97244636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nicosia A.;
                                                                                                                                                                                                                                                                                                                                                                                         "Nuclear factor 1 family proteins bind rat glutathione transferase P gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                      Imagawa M.
                                                                                                                                                                                                                                                                                                                         EQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                160 GLCVQP
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FUNCTION: CTF/NF-I RECOGNIZE AND BIND THE PALINDROMIC SEQUENCE OF TREGENAL THE PALINDROMIC SEQUENCE OF A SECONDAL PROMOTERS THE ORIGIN OF REPLICATION OF ADEMOVIRUS TYPE 2. THESE PROTINUIUDIALLY CAPABLE OF ACTIVATING TRANSCRIPTION AND REPLISUBULIT: BINDS DNA AS AN HOMODIMER. SUBCELLULAR LOCATION: NUCLEAR.
ALTERNATIVE PRODUCTS: DIFFERENT FORMS OF CTF/NF-I CAN BE EDY DIFFERENTIAL SPLICING OF THE SAME GENE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Daimon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rep.
                                                                                                                                                                                                                                                                                                                            5-509
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llarity 100.0%;
Conservative
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oa; Chordata;
ia; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ikeda T.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Liver;
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Pred. No.
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Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nishihara
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thi; Muridae;
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Murinae; Rat
                                                                                                                                                                                                                                  rat
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                                                                                              REPLICATION.
                                                                                                                                                                                                                                  liver
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RESULT 11
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Best Local S
Matches 6
                                                                                     between
the Euro
                                                                                                                                                                  This
                                                                                                                                                                                                                                                                                       "Chicken NFI/TGGCA proteins are encoded by at least three independent genes: NFI-A, NFI-B and NFI-C with homologues in mammalian genomes.";
Nucleic Acids Res. 18:2607-2616(1990).

-I- FUNCTION: CTF/NF-I RECOGNIZE AND BIND THE PALINDROMIC SEQUENCE 5'-TTGGCNNINNGCCAA-3' PRESENT IN VIRAL AND CELLULAR PROMOTERS AND IN THE ORIGIN OF REPLICATION OF ADENOVIRUS TYPE 2. THESE PROTEINS ARE INDIVIDUALLY CAPABLE OF ACTIVATING TRANSCRIPTION AND REPLICATION.

-I- SUBGUNIT: BINDS DNA AS AN HOMODIMER.

-I- ALTERNATIVE PRODUCTS: DIFFERENT FORMS OF CTF/NF-I CAN BE PRODUCED BY DIFFERENTIAL SPLICING OF THE SAME GENE.

-I- MISCELLANEOUS: IN CHICKEN NEIT-INGGCA PROTEINS ARE ENCODED BY ATTERSET TRUSTED AND NEIT-OF A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
NUCLEAR FACTOR 1 A1 (NF-I) (CCAAT BOX-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Embryo;
MEDLINE-90251434; PubMed-2339052;
MEDLINE-90251434; PubMed-2339052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X84209; CAA58995.1; -.
EMBL; X13167; CAA31565.1; -.
EMBL; X13167; CAA31565.1; -.
PIR; S01300; S01300.
TRANSFAC; T00599; -.
InterPro; IPR000647; -.
Pfam; PF00859; CTF_NFI; 1.
PROSITE; PS00349; CTF_NFI; 1.
Transcription regulation; DNA replication; DNA-binding; Activator; Nuclear protein; Multigene family; Alternative splicing.
SEQUENCE 509 AA; 55976 MW; 59120C7090229F87 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Archosauria; Aves;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CTF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFIA_CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160 GLCVQP 165
                                                                             ween the Swiss Institute of Bioinformatics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 GLCVQP 7
                                                                                                                                                                                                                                  LEAST THREE INDEPENDENT GENES: NFI-A, NFI-B AND SIMILARITY: BELONGS TO THE CTF/NF-I FAMILY.
                                                                                                         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE CTF/NF-I FAMILY. .
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6; Conserv
        non-profit institutions as long and this statement is not removed
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Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi;
; Galliformes; Phasianidae; Phasianinae;
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THE PROCESS OF THE PR
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RT "CDNA cloning, expression, and chromosomal localization of human N-

RT acetylglucosaminyltransferase III (GnT-III).";

RT acetylglucosaminyltransferase III (GnT-III).";

RL J. Biochem. 113:692-698(1993).

CC -1- FUNCTION: TT IS INVOLVED IN THE REGULATION OF THE BIOSYNTHESIS AND

CC -1- FUNCTION OF GLYCOPROTUN OLIGOSACCHARIDES. CATALYZES

CC THE ADDITION OF N-ACETYLCLUCOSAMINE IN BETA 1-4 LINKAGE TO THE

BETA-LINKED MANNOSE OF THE TRIMANNOSYL CORE OF N-LINKED SUGAR

CC CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE

CC CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE

CC REGULATION OF THE BIOSYNTHESIS OF GLYCOPROTEIN OLIGOSACCHARIDES.

CC -1- CATALYTIC ACTIVITY: UDP-N-ACETYL-D-GLUCOSAMINE + N-ACETYL-BETA-D-

CC GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 3 (N-ACETYL-BETA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-ACETYL-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1, 4-N-BETA-D-GLUCOSAMINYL-1
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__HUMAN STANDARD; PRT; 531 AA.

GNT3_HUMAN STANDARD; PRT; 531 AA.

GO9327;

01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1996 (Rel. 34, Last annotation update)
01-OCT-1996 (Rel. 34, Last annotation update)
BETA-1,4-MANNOSYL-CLYCOPROTEIN BETA-1,4-N-ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-GLYCOSYL-OLIGOSACCHARIDE-GLYCOPROTEIN
N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE
                                  EMBL; D13789; BAA02937.1; PIR; JN0586; JN0586.
                                                                                                                                             use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Exthe European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=93380894; PubMed=8370666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           III) (GNT-III) (GLCNAC-T III). MGAT3 OR GGNT3.
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PROSITE; PS00349; CTF_NFI; 1.

Transcription regulation; DNA replication; DNA-binding; Activator; Nuclear protein; Multigene family; Alternative splicing. SEQUENCE 522 AA; 57473 MW; C51F3E5FE6077740 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606
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SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. GOLGI.
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Eutheria; Primates; Catarrhini; Hominidae; Homo
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Best Local S
Matches 5
THE ADDITION OF GLYCOPROTEIN OLIGOSACHARIDES. CATALYZES
THE ADDITION OF WACETYLGLUCOSAMINE IN BETA 1-4 LINKAGE TO THE
BETA-LINKED MANNOSE OF THE TRIMANOSYL CORE OF N-LINKED SUGAR
CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE
REGULATION OF THE BIOSYNTHESIS OF GLYCOPROTEIN OLIGOSACCHARIDES.
-I- CATALYTIC ACTIVITY: UDD-N-ACETYL-D-GLUCOSAMINE + N-ACETYL-BETA-D-
GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 3-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 5) BETA-D-MANNOSYL-1, 6-1-LUCOSAMINYL-1
1, 2-ALPHA-D-RANNOSYL-1, 3-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1)
1, 2-ALPHA-D-RANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-ALPHA-D-MANNOSYL-1, 6)-(N-ACETYL-BETA-D-GLUCOSAMINYL-1, 2-ALPHA-D-GLUCOSAMINYL-1, 2-AL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM ..... STRAIN-129/SV; TISSUE-Liver; STRAIN-129/SV; TISSUE-Liver; MEDLINE-96069598; PubMed-7590346; Bhaumik M., Seldin M.F., Stanley P.; "Cloning and chromosomal mapping of the "Cloning and rovitransferase III.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
DOMAIN
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONT3_MOUSE STANDARD; PRT; 536 AA.

010470; P70386;
01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
15-JUL-1996 (Rel. 38, Last annotation update)
BETA-1.4 - MANNOSYL-GIYCOPROTEIN BETA-1.4 - N-ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-GLYCOSYL-OLIGOSACCHARIDE-GLYCOPROTEIN N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE)
                                                                                                                                                                                                                                                                                                                              oligosaccharides appears dispensable for viability and Glycobiology 7:45-56(1997).

-I- FUNCTION: IT IS INVOLVED IN THE REGULATION OF THE
                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-97214999; PubMed-9061364; Priatel J.J., Sarkar M., Schachter H., Marth J.D.; "Isolation, characterization and inactivation of the the bisecting N-cetylplucosamine in asparagine-linke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-129/SVJ; TI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acetylglucosaminyltransferase Gene 164:295-300(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOUSE
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DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
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5; Conserv
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84
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ED657ECC006FCA2D CRC64;
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(GLCNAC...)
(GLCNAC...)
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RESULT
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Best Local S
Matches 5
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01-FEB-1994 (Rel. 28, Last sequence update)
01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
BETA-1.4 -MANNOSYL-GLYCOPROTEIN BETA-1, -ACETYLGLUCOSAMINYL-
TRANSFERASE (EC 2.4.1.144) (N-ELYCOSYL-OLICOSACCHARIDE-GLYCOPROTEIN
N-ACETYLGLUCOSAMINYLTRANSFERASE III) (N-ACETYLGLUCOSAMINYLTRANSFERASE
III) (GNT-III) (GLCNAC-T III).
RATTNO --
      UDP-N-acetylglucosamine: beta-D-mannoside
beta-1,4N-acetylglucosamine; beta-D-mannoside
J. Biol. Chem. 267:18199-18204(1992).
J. Biol. Chem. 267:18199-18204(1992).
I Biol. Chem. 267:18199-18204(1992).
I FUNCTION: IT IS INVOLVED IN THE REGULATION OF THE BIOSYNTHESIS AN
BIOLOGICAL FUNCTION OF GLYCOPROTEIN OLIGOSACCHARIDES. CATALYZES
THE ADDITION OF N-ACETYLGLUCOSAMINE IN BETA 1-4 LINKAGE TO THE
BETA-LINKED MANNOSE OF THE TRIMANNOSYL CORE OF N-LINKED SUGAR
CHAINS. IT IS ONE OF THE MOST IMPORTANT ENZYMES INVOLVED IN THE
REGULATION OF THE BIOSYNTHESIS OF GLYCOPROTEIN OLIGOSACCHARIDES.
I-CATALYTIC ACTIVITY: UDP-N-ACETYL-D-GLUCOSAMINE + N-ACETYL-BETA-D-
                                                                                                                                                                                                                                                                                                                                                                     GNT3_RAT
Q02527;
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CARBOHYD
VARIANT
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between
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                                                                                                                                                                                                                         Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
Mammalia; Eutheria; Rode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed: entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                  Nishikawa A., Ihara Y., Hatakeyama M., Kang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MGD;
                                                                                                                                                              MEDLINE-92388193; PubMed-1325461;
                                                                                                                                                                          STRAIN-DONRYU;
                                                                                                                                                                                    SEQUENCE FROM N.A.,
                                                                                                                                                                                                              NCBI_TaxID=10116
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by non-profit institutions as '
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGLCVQPG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               536 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                        TISSUE-Kidney;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Rodentia;
                                                                                                                                                                                       AND
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                                                                                                                                                                                     SEQUENCE
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N-LINKED (GLCNAC...) (
N-LINKED (GLCNAC...) (
I -> V (IN 129/SVJ).
D -> G (IN 129/SVJ).
T -> P (IN 129/SVJ).
S -> E (IN 129/SVJ).
S -> E (IN 129/SVJ).
A -> V (IN 129/SVJ).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL-ANCHOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LUMENAL, CATALYTIC
                                                                                                                                                                                                                          Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F9FD5283867F2994 CRC64;
                                                                                                                                                                                       엵
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                                                                                                                                                                                     285-295;
                                                                                                                                                                                                                                                                                                                                                                                  536
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                                                                                                                                   Kangawa
ssion of
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OR (TYPE-II
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) (POTENTIAL).
                                                                                                                                                Taniguchi N.;
                                                                                                                                                                                                                          Euteleostomi;
; Murinae; Rattus.
                                                                                                                                                                                     AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restrictions
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RESULT
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Best Local S
Matches 5
Schmitt I., Epplen J.T., Riess O.;

**Predominant neuronal expression of the gene responsible for dentatorubral-pallidoluysian atrophy (DRPLA) in rat.";

*Hum. Mol. Genet. 4:1619-1624(1995).

-I- TISSUE SPECIFICITY: PREDOMINANT NEURONAL EXPRESSION, ALTHOUGH MARKEDLY REDUCED AMOUNTS ARE FOUND IN MOST OTHER TISSUES.

-I- DEVELOPMENTAL STAGE: SIMILAR EXPRESSION AT ALL DEVELOPMENT STAGES (DAY 14.5 P.C., 17.5 P.C., NEWBORNS AND ADULTS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-1996
01-OCT-1996
30-MAY-2000
                                                                                                                                                                                                                                                                                                    Ashworth
"Cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                        TISSUE=Brain, Cerebellum, Hippocampus, and MEDLINE=96081227; PubMed=8541849;
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                            TISSUE-Cerebellum, and Striatum; MEDLINE-97317138; PubMed-9173996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content modified and this statement is not removed. Usage by ar entitles requires a license agreement (see http://www.isb-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWI
                                                                                                                                                                                                                                                              Neurobiol.
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATROPHIN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRPL_RAT
                                                                                                                                                                                                                                                                                   homologue.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; D10852; BAA01625.1;
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112 GGVCFKPG 119
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SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. GOLGI.
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5; Conserv
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5 (Rel. 34, Last sequence update)
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1 (DENTATORUBRAL-PALLIDOLUYSIAN ATROPHY PROTEIN).
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**N-LINKED (GLCNAC...) (POTENTIAL).

**N-LINKED (GLCNAC...) (POTENTIAL).

**B1817BEB6C307438 CRC64;
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN).
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Sciurognathi; Muridae; Murinae; Rattus.
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EMBL; X89453; CAA61623.1;
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Ogw6f8 xenopus lae
Ogy5w5 homo sapien
Ogwual mus musculu
Ogw6f9 brachydanio
O75851 homo sapien
Ogj1r0 mus musculu
O7543 homo sapien
Ogp0w3 homo sapien
Ogp0w5 homo sapien
O94xt5 mus musculu
O94106 pneumocysti
O94104 pneumocysti
O13051 homo sapien
Q9r195 mus musculu
O9r192 mus musculu
O60413 homo sapien
                                                                    002660 bos taurus
033515 rhodobacter
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Q9p2a9 homo sapien	o	561		35	5
Q9qy90 rattus norv		532		u U	44
Bum	11 Q02780	532		35	3
homo sa	o	531	74.5	35	2
090925 gallus gall		509		35	11
mus mu		509	74.5	35	0
Q90927 gallus gall	_	498	74.5	35	39
rattus	11 Q63573	498	74.5	35	38
	-	497	74.5	35	37
Q64192 mus sp. nfi		488	74.5	35	36
Q63783 rattus norv	11 Q63783	487	74.5	35	35
mus mu		466	74.5	35	
	13 Q90928	461	74.5	35	33
xenopu		433	74.5	35	32
Q13050 homo sapien	4 Q13050	433		35	31
5	4 Q13052	424	74.5	35	ŏ
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Q90929 gallus gall	13 Q90929	386	74.5	35	88
		380	74.5	3 5	27
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O53253 mycobacteri		373	74.5	35	Š
Q63785 rattus norv		357	74.5	3 5	4
P95220 mycobacteri	2 P95220 .	300	74.5	35	ພ
070190 rattus norv	11 070190	268		35	2
Q90926 gallus gall		241		35	21
Q12857 homo sapien	4 Q12857	225	74.5	35	õ

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Sheppard P., Jelinek L., Whitmore T., Blumberg H., Lehner J.,

AN O'Hara P.;

AN O'Hara P.;

Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.

REMBL; AF186111; AAF01429.1; -.

REMBL; AF186111; --

REMBL; AF18611; --

REMBL; AF18611; --

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REMBL; AF18
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O9UHF1;
O1-MAY-2000 (TrEMBLrel. 1
O1-MAY-2000 (TrEMBLrel. 1
O1-OCT-2000 (TrEMBLrel. 1
NOTCH4-LIKE PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HSSF; P00740; 1EDM.
INTERPRO; IPR000561; -.
INTERPRO; IPR0002049; -.
PFAM; PF00008; EGF; 5.
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"A new secreted protein that binds to Wnt proteins and inhibits their activities.";
Nature 398:431-436(1999).
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01-NOV-1999 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
WAY INHIBITORY FACTOR 1 PRECURSOR (WNT INHIBITORY FAC
WIF1 OR WIF-1.
Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
Xenopodinae; Xenopus.
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BE INVOLVED IN MESODERN SEGMENTATION.

-I- TISSUE SPECIFICITY: DURING SOMATOGENESIS, EXPRESSED PREDOMINANT IN UNSEGMENTED PARAXIAL PRESOMITIC MESODERN AND, TO A MUCH LESS EXTENT, IN NEWLY SEGMENTED SOMITES.
-I- DEVELOPMENTAL STAGE: FIRST EXPRESSED AT NEURULA STAGES.
-I- SIMILARITY: CONTAINS 5 EGF-LIKE DOMAINS.
EMBL, AF122924; AAD25404.1; -.
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MEDLINE-99215557; PubMed-10201374;
Hsieh J.-C., Kodjabachian L., Rebb
Smallwood P.M., Samos C.H., Nusse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=8355;
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                                                                                                                                                                    Similarity
7; Conserv
                                                                                                                                                                     Conservative
   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                                                                                  41071
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87
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12, Last sequence update)
15, Last annotation update)
PRECURSOR (WNT INHIBITORY FACTOR-1) (WIF-1).
                                                                                                                                                                                                                                                                W.
                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WNT INHIBITO
EGF-LIKE 1.
EGF-LIKE 2.
EGF-LIKE 3.
EGF-LIKE 4.
EGF-LIKE 5.
POTENTIAL.
                                                                                                                                                                                     Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                POTENTIAL.
POTENTIAL.
POTENTIAL.
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                                                                                                                                                                                                                                                          POTENTIAL.
E26F973B0F00ACF8 CRC64;
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
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                                                                                                                                                                  Mismatches
379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  374
                                                                                                                                                                                                         DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                   Length 374;
                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PREDOMINANTLY
A MUCH LESSER
                                                                                                                                                                0
                                                                                                                                                                Gaps
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RESULT
Q9WUA1
                                                                                                                   Вb
                                                                                                                                    Qγ
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Best Local Similarity
Matches 7; Conser
  Q9WUA1
Q9WUA1
Q9WUA1
Q9WUA1;
Q1-NOV-1999 (TrEMBLrel 12, Created)
Q1-NOV-1999 (TrEMBLrel 12, Last sequence update)
Q1-NOV-1999 (TrEMBLrel 15, Last annotation update)
MNT_INHIBITORY FACTOR 1 PRECURSOR (WNT_INHIBITORY FACTOR-1) (WIF-1).
                                                                                                                                                                                                                        DOMAIN
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
 WIF1
                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00022; EGF_1;
PROSITE; PS01186; EGF_2;
Repeat; EGF-like domain;
SIGNAL 1 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hsieh J.-C., Kodjabachian L., Rebbe
Smallwood P.M., Samos C.H., Nusse F
"A new secreted protein that binds
activities.";
Nature 398:431-436(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=99215557; PubMed=10201374;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
WNT INHIBITORY FACTOR 1 PRECURSOR (WNT INHIBITORY F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR00011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFAM; PF00008; EGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
Eukaryota; Me
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WIF1 OR WIF-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9Y5W5;
                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION: BINDS
                                                                                                                             GGLCVQPG
OR
                                                                                                                  GGLCVTPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P00743;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR002049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IPR000561; -.
                                                                                                                                                                                                            326
379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ns (Human).
Metazoa; Chordata;
                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kodjabachian L., Rebbert M.L., Rattner A.,
M., Samos C.H., Nusse R., Dawid I.B., Nathans J.;
ted protein that binds to Wnt proteins and inhibits
                                                                                                                   228
                                                                                                                                     ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1CCF
                                                                                                                                                                                                               A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EGFLAMININ
                                                                                                                                                                   87.2%;
87.5%;
                                                                                                                                                                                                               41512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TO WNT PROTEINS AND INHIBITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Signal; Developmental protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  UNKNOWN_5.
                                                                                                                                                                                                               MΨ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EGF-LIKE DOMAINS
                                                                                                                                                        Score 41; DB Pred. No. 4.3; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                               WNT INHIBITO
EGF-LIKE 1.
EGF-LIKE 2.
EGF-LIKE 3.
EGF-LIKE 4.
EGF-LIKE 5.
POTENTIAL.
POTENTIAL.
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                                                                                                                                                                                                                                                        POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
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POTENTIAL.
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POTENTIAL.
; 27782370A266E784 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                          INHIBITORY FACTOR
                                                                                                                                                                 DB
4.3;
                                                                                                                                                                              4;
                                                                                                                                                                              Length 379;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THEIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FACTOR-1) (WIF-1).
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                                                                                                                                                         0;
                                                                                                                                                         Gaps
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RESULT
D9W6F9
IDW6F9
AC Q
AC Q
DT C
DT C
OC C
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                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalla; Eutherla; R
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE;
Repeat; E
SIGNAL
CHAIN
COMAIN
DOMAIN
DOMAI
                                                                                                                                                                        Q9W6F9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hsieh J.-C., Kodjabachian L., Rebbu
Smallwood P.M., Samos C.H., Nusse I
"A new secreted protein that binds
activities.";
Nature 398:431-436(1999).
Brachydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata;
Actinopterygii; Neopterygii; T
                                                                01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
WHT INHIBITORY FACTOR 1 PRECURSOR (WNT INHIBITORY FACTOR-1) (WIF-1).
WIF1 OR WIF-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BRAIN AND EYE.
-!- SIMILARITY: CONTAINS 5 |
EMBL; AF122923; AAD25403.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00022; PROSITE; PS01186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP; P00740; 1IXA.
MGD; MGI:1344332; Wifl-pending.
INTERPRO; IPR000561; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE-99215557; PubMed-10201374;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PFAM; PF00008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTERPRO; IPRO02049;
                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: BINDS TO WAT BE INVOLVED IN MESODERM TISSUE SPECIFICITY: EXP
                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                                                                                                         GGLCVQPG
                                                                                                                                                                                                                                                                                                   GGLCVTPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EGF-like domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PR00011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       379
                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                198
209
214
230
241
246
262
273
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .; EGFLAMININ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EGF_1; UNKNOWN_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41590
                                                                                                                                                                                                                                                                                                                                                                                                       87.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DERM SEGMENTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXPRESSION HIGHEST IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Signal; Developmental protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₹
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WNT INHIBITORY FACTOR 1.
EGF-LIKE 2.
EGF-LIKE 3.
EGF-LIKE 3.
EGF-LIKE 4.
EGF-LIKE 4.
EGF-LIKE 5.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                    Score 41;
Pred. No.
  ) (Zebra danio).
; Craniata; Vert
Teleostei; Eute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rebbert M.L., I
lusse R., Dawid i
binds to Wnt pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                           378
    Vertebrata; |
Euteleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INHIBITS
                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ., Rattner A., id I.B., Nathans J.; proteins and inhibits
                                                                                                                                                                                                                                                                                                                                                                                                                          11;
                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HEART AND LUNG. LOWER
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 379;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THEIR
                                                                                                                                                                                                                                                                                                                                                                                   Indels
                       Euteleostomi;
    Ostariophysi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTIVITIES.
                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MAY
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RESULT
075851
В
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Best Local S
Matches 6
                                                                075851;
01-NOV-1998 (
01-NOV-1998 (
01-OCT-2000 (
                                                                                                                                                                                                                                        DOMAIN
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLING-99215557; PubMed-10201374;
Hsieh J.-C., Kodjabachian L., Rebbert Parker J., Samos C.H., Nusse R., Smallwood P.M., Samos C.H., Nusse R., Smallwood P.M. Smootein that binds to
                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repeat;
SIGNAL
                Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                       01-NOV-1998 (Tremblrel. 08, 01-NOV-1998 (Tremblrel. 08, 01-OCT-2000 (Tremblrel. 15, WUGSC:H_DJ0751H13.1 PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             activities.";
Nature 398:431-436(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00022; EGF_1; PROSITE; PS01186; EGF_2; Repeat; EGF-11ke domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP; P00740; 1EDM.
ZFIN; ZDB-GENE-990712-17;
INTERPRO; IPR000561; -.
INTERPRO; IPR002049; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- FUNCTION: BINDS TO WNT PROT
BE INVOLVED IN MESODERM SEC
-!- TISSUE SPECIFICITY: HIGHLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cypriniformes; C
NCBI_TaxID=7955;
SEQUENCE FROM N.A
                                               Homo sapiens (Human)
                                                                                                        075851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SIMILARITY: CONTAINS 5 |
EMBL; AF122925; AAD25405.1;
                                                                                                                                                      219
                                                                                                                                                                       1 GGLCVQPG 8
                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MESODERM
                                                                                                                                                     GGLCMSPG
                                                                                                                                                                                          Similarity 6; Conser
                                                                                                        PRELIMINARY;
                                                                                                                                                                                           Conservative
                                                                                                                                                      226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cyprinidae; Rasborinae; Danio.
                                                                                                                                                                                                                                         AĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EGFLAMININ
                                                                                                                                                                                                                                                    TO WNT PROTEINS AND MESODERM SEGMENTATION
                            Primates;
                                    Chordata;
                                                                                                                                                                                                                                         41312
                                                                                                                                                                                                    75
                                                                                                                                                                                                   .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Signal; Developmental protein.
SOTENTIAL.

POTENTIAL.

POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               UNKNOWN_5
                                                                                                                                                                                                                                         W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EGF-LIKE DOMAINS
                                                       Created)
Last sequence up
Last annotation
(FRAGMENT).
                                                                                                                                                                                                                                      POTENTIAL.
                                                                                                                                                                                          1;
                                                                                                                                                                                          Score 39; DB Pred. No. 10; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                            WNT INHIBITO
EGF-LIKE 1.
EGF-LIKE 2.
EGF-LIKE 3.
EGF-LIKE 4.
EGF-LIKE 5.
                          Craniata; V
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXPRESSED
                                                                                                       4123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M.L., Rattner A.,
Dawid I.B., Nathans J.;
Wnt proteins and inhibits their
                                                                                                                                                                                                 рв
10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INHIBITS THEIR ACTIVITIES.
                                    Vertebrata;
                                                                                                        A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IN UNSEGMENTED PARAXIAL
                                                                          update)
                            Hominidae;
                                                                                                                                                                                                            13;
                                                                 update)
                                                                                                                                                                                                            Length 378;
                                                                                                                                                                                           Indels
                                   Euteleostomi;
                                                                                                                                                                                          0,:
                                                                                                                                                                                          Gaps
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Strowmatt C

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RESULT

Q9JLRO

ID Q9

AC Q9

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Best Local S
Matches 6
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01-OCT-2000
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS0002;
PROSITE; PS00196;
PROSITE; PS00225;
PROSITE; PS00280;
PROSITE; PS01209;
PROSITE; PS01209;
PROSITE; PS01209;
PROSITE; PS0068;
                                                                       Goutebroze L., Brault E., Muchardt C., Camonis J., Thomas G., "Cloning and Characterization of SCHIP-1, a Novel Protein Interacting Specifically with Spliced Isoforms and Naturally Occurring Mutant NF2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3234
                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
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SCHIP-1 (FRAGMENT)
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                            Proteins.";
Mol. Cell.
                                                                                                                                                                  TISSUE-BRAIN;
                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                        NCBI_TaxID=10090;
[1]
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INTERPRO;
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Submitted
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"The seq
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Cell. Biol.
AF145716; A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 75. 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel.
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. 20:1699-1712(2000).
AAF34244.1; -.
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LDLRA_1; 9.
LDLRA_2; 20.
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COPPER_BLUE; UNKNOWN_1.
CRYSTALLIN_BETAGAMMA; UNKNOWN_1.
BPTI_KUNITZ; UNKNOWN_1.
                                                                                                                                                                                                                                                                     Chordata;
Rodentia;
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Pred. No.
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                     Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein.
NON_TER 1
SEQUENCE 381 AA; 4
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SEQUENCE
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Yu W., Gibbs R.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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Mammalia; Eutheria;
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(TrEMBLrel. 08, Last sequence up
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                                                                                                                                     Last sequence update)
Last annotation update)
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Pred.
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Pred. No.
                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (FRAGMENT).
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16;
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15;
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shotgun library
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on update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4;
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's R.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liu
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AC 2660
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Matches 6
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Matches 6; Conser
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O9POW5;
01-OCT-2000 (TrEMBLrel. 1
01-OCT-2000 (TrEMBLrel. 1
01-OCT-2000 (TrEMBLrel. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM
TISSUE-BRAIN;
Gobron S.; Submitted (OCT-1998) to the EMBL/GenBank/DDBJ EMBL; Y08560; CAA69867.1; -.
                                                                                                                                                                                                                                       Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1997 (TrEMBLrel 04, 01-JAN-1999 (TrEMBLrel 09, 01-OCT-2000 (TrEMBLrel 15, SCO-SPONDIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goutebroze L., Brault E., Muchardt C., Camonis J., Thomas G.;
"Cloning and Characterization of SCHIP-1, a Novel Protein Interacting Specifically with Spliced Isoforms and Naturally Occurring Mutant NF2 Proteins.";
MOI. Cell. Biol. 20:1699-1712(2000).
EMBL: AF145713; AAF34241.1;
EMBL: AF145713; AAF34241.1;
SEQUENCE 487 AA; 53479 MW; 86F86EDD64A475BF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goutebroze L., Brault E., Muchardt C., Camonis J., Thomas G.;
"Cloning and Characterization of SCHIP-1, a Novel Protein Interacting Specifically with Spliced Isoforms and Naturally Occurring Mutant NF2 Proteins.";
Mol. Cell. Biol. 20:1699-1712(2000).
EMBL; AF145715; AAF34243.1;
EMBL; AF145715; AAF34243.1;
SEQUENCE 474 AA; 52079 MW; 5C4EF8E1867A78F9 CRC64;
                                                                                                                                        SEQUENCE FROM N.A.
TISSUE-SUBCOMMISSURAL ORGAN;
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6; Conser
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Last sequence update)
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Pred. No.
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RESULT
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Matches 6
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INTERPRO; IPRO00884; -.

INTERPRO; IPRO02172; -.

INTERPRO; IPRO02172; -.

INTERPRO; IPRO02465; -.

INTERPRO; IPRO02919; -.

INTERPRO; IPRO02919; -.

PFAM; PF00057; Idl_recept_a; 7.

PFAM; PF00090; tsp_l; 1.

PFAM; PF01826; TLL; 2.

PFAM; PF01826; TLL; 2.

PRINTS; PR00340; RECEPTOR.

PROSITE; PS00340; RECEPTOR.

PROSITE; PS00340; LDLRA_1; 4.
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Larimer F.W., Lu T.-Y.S., Buley
FASEB J. 9:0-0(1997).
EMBL; U23145; AABB2054.1; -
INTERPRO, IPRO00792; -
PFAM, PF00196; GeTE; 1.
SEQUENCE 250 AA; 27505 MW;
                                                                            Q9QXT5
Q9QXT5;
Q1-MAY-2000
Q1-MAY-2000
Q1-OCT-2000
NOTCH4-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O33515;
O1-JAN-1998 (TrEMBLrel. 05, Created)
O1-JAN-1998 (TrEMBLrel. 05, Last sequence update)
O1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
HYPOTHETICAL PROTEIN.
Rhodobacter capsulatus (Rhodopseudomonas capsulata)
Bacteria; Proteobacteria; alpha subdivision; Rhodob
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NON_TER 87
Mus musculus (Mouse).
Eukaryota; Metazoa; (
Mammalia; Eutheria; F
                                                               ZNEU1.
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NCBI_TaxID=1061;
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Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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PRINTS; PR00301; HEATSHOCK70.

PROSTTE; PS00229; HSP70_1; UNKNOWN_1.

PROSITE; PS00329; HSP70_2; 1.

PROSITE; PS00329; HSP70_2; 1.

PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.
                                                                                                                                                                                                     "Identification, characterization, and express endoplasmic reticulum resident chaperonins in Infect. Immun. 64:4463-4471(1996).
EMBL; U80967; AAD00455.1; -.
HSSP; P19120; 3HSC.
INTERPRO; IPRO00169; -.
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                                                                                              PROSITE; PS01036; HSP70_3; Heat shock.
NON_TER 645 645
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01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
HEAT SHOCK PROTEIN 70 (FRAGMENT).
                                                                                                                                                                                                                                                                             Stedman T.T., Buck G.A.;
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MEDLINE-97045128; PubMed-8890193;
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Eukaryota; Fungi; Fungi
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PROSITE; PS01022; EGF 1; UNKNOWN_1.
PROSITE; PS01186; EGF_2; UNKNOWN_1.
PROSITE; PS01187; EGF_CA; 1.
SEQUENCE 278 AA; 30125 MW; 863159F567102FA7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Presnell S., Gilbert T., Whitmore T., Foster D., Hart C. Marthnez T., Hoffman R., O'Hara P.; Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases. EMBL, AF184973, AAF01322.1; -. HSSP; P00740; 1EDM.
                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=38081;
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Sheppard P., Jelinek L., Whitmore T., Blumberg H.,
                                                                                                                                                                                             INTERPRO; IPRO01023
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Mus musculus homolog of HLA class III region containing NOTCH4
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GGLCVQPG 8
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Similarity 62.5%;
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                                 DB 3;
62;
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INTERPRO; IPR01023; -.
PFAM; PF00012; HSB70; 1.
PRINTS; PR00301; HEATSHOCK70.
PROSITE; PS00297; HSP70_1; UNKNOWN_1.
PROSITE; PS00329; HSP70_2; 1.
PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.
PROSITE; PS01036; HSP70_3; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Paul S.P., Graves D.C.;
"Phylogeny and sequence analysis of Pneumocystis carinii HSP70.";
Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; U71151; AAD09565.1; -.
HSSP; P19120; 3HSC.
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Paul S.P., Graves D.C.,
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Eukaryota; Fungi; Fun
Pneumocystis.
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01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
HEAT SHOCK PROTEIN 70 (FRAGMENT).
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1: /ggn2_6/ptodata/2/1aa/5A_COMB.pep:*
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3: /cgn2_6/ptodata/2/1aa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/1aa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/1aa/backfiles1.pep:*
6: /cgn2_6/ptodata/2/1aa/backfiles1.pep:*
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US-08-445-640-2
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US-08-975-114A-4
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,114A
FILING DATE: No. 5876714ember 20, 1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/107,173
FILING DATE: AUGUST 17, 193
ATTORNEY/AGENT IMPORMATION:
NAME: Lee Cheng
                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 531 amino acid residues
                                                                                                                                                                                                                            REGISTRATION NUMBER: 40,949
REFERENCE/DOCKET NUMBER: 1:F
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-721-8200
TELEPAX: 202-721-8250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Atsushi NISHIKAWA et al.
TITLE OF INVENTION: HUMAN GLYCOSYLTRANSFERASE GENE,
TITLE OF INVENTION: COMPOUNDS AND METHOD FOR INHIBITING
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 2033 K St
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20006
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US-08-476-349A-101
US-08-597-545-2
US-08-457-135-2
US-08-624-601-8
US-08-1457-094-4
US-08-1445-042-4
US-08-0445-042-4
US-08-942-686-2
US-08-445-042-686-2
US-08-445-08-16
US-08-483-199-16
US-08-483-199-16
US-08-488-508-16
US-08-681-812-2
US-09-188-930-306
US-08-461-859-35
                               Score 35;
Pred. No.
                                                                                                                                                                                                                                                                             -F3439DIV
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                  Mismatches
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Suite 800
                                 1.4e+02;
                                             DB 2;
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                                            Length 531;
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CANCEROUS METASTASIS

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Score

Query Match

774.5 772.3

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Minimum DB Maximum DB

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length:

Total number of

Database

Perfect score: Sequence:

Title:

Run on:

protein

Scoring table:

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GGLCVQPG

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                                                                                                    Sequence 5, Application US/08975114A
Patent No. 5876714
GENERAL INFORMATION:
APPLICANT: ATSUSH1 NISHIKAWA et al.
TITLE OF INVENTION: HUMAN GLYCOSYLTRANSFERASE GENE,
TITLE OF INVENTION: COMPOUNDS AND METHOD FOR INHIBIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/08849281A Patent No. 6153433
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Matches 5; Conser
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NTTORNEL/ NAME: LOWER CHANGE LOWER CHANGE HOUSE 140,949
REGISTRATION NUMBER: 40,949
REFERENCE/DOCKET NUMBER: 97-0529*/LC(MJ)/1
REFERENCE/DOCKET NUMBER: 97-0529*/LC(MJ)/1
TELECOMMUNICATION INFORMATION:
TOT.EDHONE: 202-721-8200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Wordperfect 5.1 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                    NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
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CITY: Washington
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                                 STREET:
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                                                    ADDRESSEE:
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Washington D.C.
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                                 Wenderoth, Lind & Ponack, L.L.P. 33 K Street, N.W., Suite 800
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N: 514
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                                                                                                          COMPOUNDS AND METHOD FOR INHIBITING CANCEROUS METASTASIS
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Pred. No. 1.
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US-08-849-281A-3 : Sequence 3, Application US/08849281A : Patent No. 6153433
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Best Local Similarity
Thickes 5; Conserve
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/107,173
FILING DATE: August 17, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                 STREET: ZULUSTREET: Washington CITY: Washington TATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-721-8200
TELEFAX: 202-721-8250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Lee Cheng
REGISTRATION NUMBER: 40,
                                                                                                              FILING DATE: May 30, CLASSIFICATION: 514 PRIOR APPLICATION DATA:
                                                                                                                                                                              SOFTWARE: Wordperfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                               ATTORNEY/AGENT INFORMATION: NAME: Lee Cheng
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MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Eiji MIYOSHI et al.
TITLE OF INVENTION: INHIBITOR FOR VIRAL REPLICATION
TELECOMMUNICATION INFORMATION:
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SOFTWARE: Wordper
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               NAME: Lee Cheng
REGISTRATION NUMBER: 40,949
REFERENCE/DOCKET NUMBER: 97
                                                                                APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                               OPERATING SYSTEM:
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                                                                                                                                                                APPLICATION NUMBER:
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N: 514
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                                                                                                                                                                                                                                                Diskette,
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               97-0529*/LC(MJ)/1
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Pred. No. 1.4e+02;
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; HYPOTHETICAL:
US-08-859-931A-4
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                                                                                       Query Match
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Best Local :
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SEQUENCE CHARACTERISTICS:
LENGTH: 536 amino acid residues
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                          TELEFAX: (202) 293-786
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-6901
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 293-7060
                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/859,931A FILING DATE: 21 MAY 1997 CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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112 GGVCFKPG 119
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                                                         Local Similarity
les 6; Conserv
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                            1 GGLCVQPG 8
GGVLVQPG 15
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202-721-8250
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                                                         Conservative
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                                                                        72.3%;
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                                                        Score 34; DB Pred. No. 8.7; 1; Mismatches
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Pred. No. 1.4e+02;
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8.7;
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US-08-545-809A-125
                                                                                                                                                                                                                                                                                                       US-09-347-819-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; MOLECULE TYPE: US-08-545-809A-125
                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 125, Application US/08545809A
Patent No. 6096878
                                                                                                                                                                                                                                                        Sequence 8, Application US/09347819 Patent No. 6184036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                          APPLICANT: Cahoon, Rebecca E.
APPLICANT: Rafalski, J. Antoni
APPLICANT: Rafalski, J. Antoni
APPLICANT: Rafalski, J. Antoni
APPLICANT: Falco, S. Carl
TITLE OF INVENTION: Ornithine Biosynthesis Enzymes
FILE REFERENCE: BB-1174-C
CURRENT APPLICATION NUMBER: US/09/347,819
CURRENT FILING DATE: 1999-07-02
EARLIER APPLICATION NUMBER: 60/093,209
EARLIER FILING DATE: July 17, 1998
EARLIER FILING DATE: July 17, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Honjo, Tasuku
APPLICANT: Metsuda, Fumihiko
APPLICANT: Metsuda, Fumihiko
TITLE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE
TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 617-542-5070
TELEPAX: 617-542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 125:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/545,809A
FILING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP93/00603
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatil
OPERATING SYSTEM: Winc
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ADDRESSEE: Fish & Richardson, P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 118 amino acids
TYPE: amino acid
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nes 6; Conserv
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75.0%;
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Pred. No. 48;
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Best Local
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Best Local Similarity 83.3
Matches 5; Conservative
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                                                                                                                                                                                                                                                  NAME: MISTOCK, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 7326
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                       TELEX: 66141 PENNIE
NFORMATION FOR SEQ ID NO: 17:
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1120 GGLCVDAG 1127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 2556 amino aci
                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 530 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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                                                         Local Similarity hes 6; Conserv
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CITY: New York
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                             1 GGLCVQPG 8
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                                                         Conservative
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                                                                       72.3%;
75.0%;
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ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS
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                                                     Score 34; DB 1; L...
Pred. No. 9.1e+02;
"'Armatches 2;
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Pred. No.
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                                                                                    Length 2556;
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RESULT

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RESULT 10
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TELEPAX: 212 8698864/9741
TELEEX: 66141 PENNIE
INFORMATION FOR SEO ID NO: 20:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENTTO. 1435

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GENERAL INFORMATION:
APPLICANT: Artava
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Artava
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
OPERATING SYSTEM: PC-DOS
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REFERENCE/DOCKET NUMBER: 73
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: TITLE OF INVENTION:
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TITLE OF INVENTION:
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                                                                                                                                            COUNTRY: UZIP: 10036
                                                                                                                                                                                                               STATE:
                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                              CITY: New York
                                                                                                                                                                                                                                                                       ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
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                                                                                                                                                                        New York
Y: U.S.A.
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1155 Avenue of the Americas
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WENTION: Therapeutic And Diagnostic Methods

And Compositions Based On No. 5786158ch Proteins And
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VENTION: Therapeutic And Diagnostic Methods
VENTION: And Compositions Based On No. 6083904ch Proteins And
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       PC-DOS/MS-DOS
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75.0%;
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Pred. No. 9
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TELEX: 66141 PENNIE
TELEX: E6141 PENNIE
TELEX: E610 ID NO: 20
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Bennett,
APPLICANT: Fischer,
APPLICANT: Lashbrook
APPLICANT: Glovanni,
                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
FILING DATE: 18-APR-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/08
FILING DATE: 25-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: M18TOCK, S. Leslie
REGISTRATION NUMBER: 18,8
                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/271,883
FILING DATE: 07-JUL-1994
                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                               STREET: Une FULL CITY: San Francisco STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Endo-1,4-beta-Glucanase Genes and Their TITLE OF INVENTION: Use in Plants NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1120 GGLCVDAG 1127
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PRIOR APPLICATION DATA:
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                                                                                                                                                   APPLICATION NUMBER: US/08/434,702 FILING DATE: 04-MAY-1995 CLASSIFICATION: 536
                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: Si
                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                94105-1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/08434702
                                                                                                                                                                                                                                                                                                                                                                                   E: Townsend and Townsend and Crew One Market Plaza, Steuart Street Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2556 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lashbrook, Coralie Giovanni, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bennett, Alan B.
Fischer, Robert L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                             18-APR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
BER: US 07/511,417
0-APR-1990
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75.0%;
                                                                 US 07/687,466
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Pred. No. 9.
                                                                                                                                                                                                                        Version #1.30
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Query Match
Best Local Similarity
Watches 6; Conserve
                                                                                              ; MOLECULE TYPE: US-08-545-809A-108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
""+ches 6; Conserv?
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                                                                                                                                                                                        TELEFAX: 617-542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (415) 543-50 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                         NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Honjo, Tasuau
APPLICANT: Matsuda, Fumihiko
APPLICANT: Matsuda, Fumihiko
APPLICANT: MATSUDA, FUMAN IMMUNOGLOBULIN VH GENE
                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
FILING DATE: 27-MAR-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                           FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         327 GGLIVKPG 334
                                                                                                                                                                                                             TELEPHONE: 617-542-8906
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/JP93/00603 FILING DATE: 10-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: US
ZIP: 02110-2804
                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
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                                                                                                                                                           LENGTH:
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                                                                                                                                          amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Fish & Richardson, P.C.
225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                               linear
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                                                                                                            protein
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                          US/08/545,809A
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    Mismatches

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Pred. No. 2
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Conservative

68.1%; 75.0%;

Score 32; DB 3; Pred. No. 1e+02; 0; Mismatches

Length 118;

Indels

0;

Gaps

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GGLCVQPG 8

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Best Local Similarity
"---hes 6; Conserva
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US-08-428-197-38
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                                                                                                                                                                             Sequence 38, Application PC/TUS9310555 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 5891438
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US:
APPLICATION NUMBER: PCT/US:
PILING DATE: 29-OCT-1993
ATTORNEY/AGENT INFORMATION:
NAME: Howells, Stacy L.
REGISTRATION NUMBER: 34.84.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (619) 455-5110 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MET
TITLE OF INVENTION: VAC
TITLE OF INVENTION: VAC
TITLE OF INVENTION: THE
NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: FD TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 455-5100
                                                          TITLE OF INVENTION: METHOD FOR STIMULATING PRODUCTION OF TRIVENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH TITLE OF INVENTION: VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES TITLE OF INVENTION: THEREOF THEREOF THEREOF THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 123 amino acid
                                         CORRESPONDENCE ADDRESS
                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 123 amino acids TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE:
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                      ADDRESSEE:
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1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
Spensley Horn Jubas & Lubitz 1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SILVERMAN, GREGG J.

VENTION: METHOD FOR STIMULATING PRODUCTION OF
VENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH
VENTION: VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES
                                                                                                                                                                SILVERMAN, GREGG J.
                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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75.0%;
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APPLICATION NUMBER: US/08/651,999A FILING DATE: MAY 23, 1996
ATTORNEY/AGENT INFORMATION:
NAME: ELIZABETH A. BOGOSIAN
REGISTRATION NUMBER: 39,911
REFERENCE/DOCKET NUMBER: 96700/395
TELECOMMUNICATION: INFORMATION:
TELEPHONE: (212) 697-5995
TELEPHONE: (212) 286-0854 or 286-0082
TELERAX: (212) 286-0854 or 286-0082
TELEX: TWX 710-581-4766
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/08651999A Patent No. 6031088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 6; Conserv
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INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 123 amino acids
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COMPUTER READABLE FORM:
MEDIUM TYPE: Flopyy disk
COMPUTER: IBM PC compatible
COMPUTER: FOR PC-DOS/MS-DOS
PC-DOS/MS-DOS
PC-DOS/MS-DOS
PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH 1.44 Mb STORAGE
MEDIUM TYPE: DISKETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                    SOFTWARE: ASCII
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 29-OCCCLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 90 PARI
CITY: NEW YORK
STATE: NEW YORK
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                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.A. ZIP: 10016
                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                 COMPUTER:
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amino acid
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California
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                                                                                                                                                                                                                                                                                                                                                                                                               NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                     90 PARK AVENUE
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ENTION: POLYCYSTIC KIDNEY DISEASE PKD2 GENE
                                                                                                                                                                                                                                                                                                 IBM PC COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AMSTER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-OCT-1993
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75.0%;
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Pred. No. 1
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1.1e+02;
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LENGTH: 866 amino acids
TYPE: anino acids
TYPE: anino acid
STRANDEDNESS: single
TOPOLOGY: linear
DESCRIPTION: peptide
DESCRIPTION: peptide
HYDOTHETICAL: NO
FRAGMENT TYPE: internal fragment
US-08-651-999A-1

Query Match
Best Local Similarity 75.0%; pred. No. 6.8e+02;
Matches 6; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 GGLCVQPG 8
| | | | | | | |
Db 44 GGLCEQRG 51

Search completed: June 13, 2001, 14:16:36

Job time: 497 sec
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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                              Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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                                                                                                                                                                                                                                                                                                      Score
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length: 2000000000
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Match
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1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
4: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
5: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
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1.995 Million cell updates/sec
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Gapop 10.0 ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : /SIDS6/gcgdata/geneseq/geneseqp/AA199. DAT: *
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                                                                                                                                                                                                  Y79122
Y79118
Y36831
Y79121
Y79110
Y79126
R20006
R85198
R85200
R85200
R85199
Y79117
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                                                                                            Amino acid sequenc
Peptide antagonist
Peptide antagonist
Peptide antagonist
Zonula occludens t
                                                                                                                                                                                                                                                                                                   Description
                     Avenacinase - a sa
Avenacinase-like p
Avenacinase-like p
                                                                                                                                                                                                                          Peptide antagonist Peptide antagonist
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Y42200 Y42180 Y81817 Y82215 Y52189 Y52180 Y52984 W61162 Y79120 W88384 W88384 W88384 W883868	W81810 Y82208 Y82208 Y52173 Y52173 Y52977 B40159 B40159 R740406	Y79124 Y79106 R70101 R55198 R55198 Y42471 W142471 Y52680 Y52680 Y52680 Y52680 Y5277 Y5277 R55200 R65333 Y42473
Human Zona pelluci Human ZPA protein. Human ZPA protein. Human ZPA protein. Human Zona pelluci Human Zona protei Human MINT3 protei	e zpa pe zona e cona e zona e zona e zona e zona forming	Peptide antagonist Canine zona pelluc Feline zona pelluc Feline zona pelluc Feline zona pelluc Feline zona pelluc

ALIGNMENTS

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RESULT
Y79122
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                    05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                          Y79122;
                                                                                                                                                                                                                                                                                                                            Y79122 standard; Peptide; 8
                   WPI; 2000-205565/18.
                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                03-AUG-1998;
                                                                                                     28-JUL-1999;
                                                                                                                          17-FEB-2000
                                                                                                                                              WO200007609-A1.
                                                                                                                                                                   Synthetic.
                                                                                                                                                                                       gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                               Peptide antagonist of zonulin.
                                                                                 98US-0127815
                                                                                                      99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

Fasano A;

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                (UYMA-) UNIV MARYLAND BALTIMORE
                                                 03-AUG-1998;
                                                                                                                                                            WO200007609-A1
                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                      blood-brain barrier; antiinflammatory; cerebroprotective; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrie's disease, coellac disease, eosinophilic gastroenteritis, and immune diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                    28-JUL-1999;
                                                                                                                                                                                                                                gastrointestinal
                                                                                                                                                                                                                                               hypotensive;
                                                                                                                                                                                                                                                                                                                                                    Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y79118 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and human zonulins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                       17-FEB-2000
                                                                                                                                                                                                                                                                                                               Zonulin; antagonist; zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             systemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gglcvqdg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Page 46; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sent sequence is that of a peptide antagonist of zonulin of 25 such peptides (see Y79105-29) of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                             immunosuppressive; antiparasitic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   œ
                                                 98US-0127815
                                                                                    99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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Pred. No. 3.2e+05;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or food allergies, primarily to
                                                                                                                                                                                                                                               vasotropic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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RESULT
Y36831
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
04-NOV-1998;
                                                                                                                                         Chlamydia trachomatis.
                                                                                                                                                                                             paratrachoma; inclusion conjunctivitis; genital disease; peri
nongonococcal uretritis; epidymitis; cervicitis; salpingitis;
                                 27-NOV-1998;
                                                                                                        W09928475-A2
                                                                                                                                                                                                                               Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor.
                                                                    10-JUN-1999
                                                                                                                                                                                                                                                                Amino acid sequence of a Chlamydia trachomatis protein.
                                                                                                                                                                                                                                                                                                    07-OCT-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                         Y36831;
                                                                                                                                                                                                                                                                                                                                                                          Y36831 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 45; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GGLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ggvcvqdg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  œ
                                                                                                                                                                           pneumopathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         equence is that of a peptide antagonist of zonul such peptides (see Y79105-29) of the invention,
98US-0107077
                                 98WO-IB01939
                                                                                                                                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              that of a
                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 43; DB 21; Le
; Pred. No. 3.2e+05;
.....amatches 0;
                                                                                                                                                                         venereal lymphogranulomatosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8;
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                                                                                                                                                                                                            perihepatitis;
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RESULT
Y79121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  v36754-v37949 are encoded by open reading frames (ORFs) of the genome of Chlamydia trachomatis (see Z01425). The polypeptides can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis; pneumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention
New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                  03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Griffais
                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                             gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                         antibacterial; cytostatic; anti-HIV; vulnerary;
hypotensive; immunosuppressive; antiparasitic; v
                                                                                                                                                                                                                                                                                                                                2onulin;
                                                                                                                                                                                                                                                                                                                                                                                 05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                    Y79121 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome sequence of Chlamydia trachomatis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-371125/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-NOV-1997;
17-DEC-1997;
                                                                                                                                                                                     17-FEB-2000
                                                                                                                                                                                                              WO200007609-A1
                                                                                                                                                                                                                                                                                                    neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                   blood-brain barrier;
                                                                                                                                                                                                                                                                                                                                                       Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                           479121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            be of use in treating these diseases.
                                                       2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
7; Conser
                                                                                                                                                                                                                                                                                                                              antagonist; zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 710-711;
                                                                                                        MARYLAND BALTIMORE
                                                                                                                                  98US-0127815.
                                                                                                                                                           99WO-US16683.
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97FR-0016034.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89.1%;
                                                                                                                                                                                                                                                                                                                 antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1755pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 41; DB Pred. No. 10; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
. 10;
                                                                                                                                                                                                                                                                                                                cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 196
                                                                                                                                                                                                                                                                                       antiallergic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, e.g. clostridium difficile infection, content of the conditions of the condition of the conditions of the condition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonists are based on a contraction of the peptide antagonist of zonuling the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques.
Sequence
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                                                                                                                                                                                                   .g. systemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 46;
8
                                                                                                                                                                                                   lupus erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69pp; English.
                                                                                                                                                                                                   or food allergies,
                                                                                                                                                                                            primarily
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Matches Query Match 1 GGLCVQDG Local Similarity nes 7; Conserv ۳ gglcvqpg Conservative 8 8 84.8%; 0; Score Pred. Mismatches 39; No. DB .2e+05; 21; Length 8; Indels 0 Gaps 0

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B

RESULT Y79110 Synthetic neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy. 17-FEB-2000 WO200007609-A1 blood-brain barrier; antiinflammatory; Zonulin; 05-JUN-2000 Y79110 Peptide antagonist of zonulin. Y79110 standard; տ antagonist; zonula occludens toxin receptor; (first entry) Peptide; 8 cerebroprotective;

(UYMA-) UNIV 03-AUG-1998;

MARYLAND BALTIMORE

98US-0127815 99WO-US16683

28-JUL-1999;

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RESULT
Y79126
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastriits, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by
                                                                                                                                                                                               blood-brain barrier; antituturm..., neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; antibacterial; cytostatic; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 42; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recombinant DNA techniques. The peptide antagonists are used as an antinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
03-AUG-1998;
                                                                                                          WO200007609-A1
                                                                                                                                               Synthetic
                                                                                                                                                                                  gastrointestinal inflammation;
                                                                                                                                                                                                                                                                                                               Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                  05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                         Y79126
                                                                                                                                                                                                                                                                                                                                                                                                                          Y79126 standard; Peptide; 8 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do no
                                28-JUL-1999;
                                                                     17-FEB-2000
                                                                                                                                                                                                                                                                             Zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                           antagonist; zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
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98US-0127815
                                  99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.6%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 38; DB 21;
Pred. No. 3.2e+05;
0; Mismatches 1
                                                                                                                                                                                  therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receptor, yet do not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recombinant DDA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, centerocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastricts, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiactasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 48; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                  Vibrio cholerae
                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-MAR-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R20006 standard; Protein; 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  correction of congenital heart disease with Fontan's operation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-205565/18
                                                                05-JUN-1991;
                                                                                                                                                                                              WO9118979-A.
                                                                                                                                                                                                                                                                                                                               ZOT; cholera; vaccine; enterotoxin; diarrhoea
                                                                                                                                                                                                                                                                                                                                                                                               Zonula occludens toxin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New peptide antagonist of zonulin useful as antiinflammatory agent for
                                                                                                                             12-DEC-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and human zonulins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating cerebral ischemia, stroke,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYMA-) UNIV MARYLAND BALTIMORE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GGLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          They can
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                   91WO-US03812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      be prepared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82.6%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 38;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          by chemical synthesis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          motif of ZOT
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05-JUN-1990;

90US-0533315

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Best Local S
Matches 7
Avenacinase is a saponin glycosyl hydrolase (SGH) encoded by T06022, isolated from the plant pathogenic fungi Gaeumannomyces graminis var avenae. Avenacinase detoxifies the triterpenoid saponin avenacin A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              efficacy in protecting humans against subsequent infection with a strain of a similar serotype and avoid undesirable side effects such as diarrhoea, nausea and cramping. Cultures of these strains may be
                                                                                                                                                                                                                                                   09-NOV-1995
                                                                                                                                                                                                                                                                         WO9530009-A2
                                                                                                                                                                                                                                                                                                Gaeumannomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The amino acid sequence is that of the zonula occludens toxin (ZOT). It may be responsible for diarrhoea in some strains of cholera and the ZOT gene or fragments of it are deleted from strains of Vibrio cholerae (V.c.) to be used as vaccines. These V.c. strains have 100%
                                                  Claim
                                                                               New isolated saponin glycosyl hydrolase enzymes - used to develop prods. for the modification of microbial organisms and plants or
                                                                                                                                                       Bowyer P, Daniels MJ,
                                                                                                                                                                                                      29-APR-1994;
                                                                                                                                                                                                                                                                                                                        avenacinase;
                                                                                                                                                                                                                                                                                                                                    saponin
                                                                                                                                                                                                                                                                                                                                                        Avenacinase - a saponin glycosyl hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                R85198 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New Vibrio cholerae strains - fragment encoding toxin, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1992-007465/01.
N-PSDB; Q20185.
                                                                                                                                                                               (GATS-) GATSBY CHARITABLE FOUND
                                                                                                                                                                                                                            17-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                   25-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                          R85198;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GGLCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                      1995-393080/50.
DB; T06022.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for prodn. of vaccines against cholera.
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7; Conser
                                               F1g 4c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  399 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig 18; 83pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                       deglycosylation;
                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                      94GB-0008573.
                                                                                                                                                                                                                                                                                                graminis var. avenae
                                                                                                                                                                                                                            95WO-GB00592.
                                                                                                                                                                                                                                                                                                                    hydrolase; tomatinase; plant lycosylation; pore formation;
                                              113pp;
                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
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87.
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62;
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                                                                                                                                                                                                                                                                                                                       pathogenic fungi;
cell death.
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Best Local S
Matches 6
give sequentially the mono- and bis-deglucosylated forms, both of which are substantially less toxic to fungal growth than avenacin A-1 itself. This deglycosylation is sufficient to destroy the ability of the saponin to complex with membrane sterols. Saponin/sterol complexes in eukaryotic membranes results in pore formation and leakage of cell contents, with subsequent cell death. The DNA and proteins of the invention are useful in identification of related enzymes, structural studies of saponins and also for development of agents which can modulate SGH activity, e.g. for
                                                                                                                                       The saponin glycosyl hydrolase (SGH) designated avenacinase-like protein is encoded by 706024, and was isolated from the plant pathogenic fungi Gaeumannomyces graminis var tritici. Avenacinase detoxifies the triterpenoid saponin avenacin A-1 found in oat roots, by hydrolytic triterpenoid saponin avenacin A-1 found in oat roots, by hydrolytic cleavage of the beta, 1-2 and beta, 1-4 linked terminal glucose mol. to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          found in oat roots, by hydrolytic cleavage of the beta, 1-2 and beta, 1-4 linked terminal glucose mol. to give sequentially the monoand bis-deglucosylated forms, both of which are substantially less toxic to fungal growth than avenacin A-1 itself. This deglycosylation is sufficient to destroy the ability of the saponin to complex with membrane sterols. Saponin/sterol complexes in eukaryotic membranes results in pore formation and leakage of cell contents, with subsequent cell death. The DNA and proteins of the invention are useful in identification of related and proteins of the invention are useful in identification of related
                                                                                                                                                                                                                                                  Claim 2; Fig 4e; 113pp; English.
                                                                                                                                                                                                                                                                                    New isolated saponin glycosyl hydrolase enzymes - used prods. for the modification of microbial organisms and plant prods.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                (GATS-) GATSBY CHARITABLE FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-APR-1994;
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88 glclqdg 94
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6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glycosyl hydrolase; tomatinase; plant pathogenic fungi; nase; deglycosylation; pore formation; cell death; ss.
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1.7e+02;
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plants or
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Avenacinase-like protein is a saponin glycosyl hydrolase (SGH) encoded CC by T06023, isolated from the plant pathogenic fungi Gaeumannomyces CC graminis var. graminis. This enzyme has action like that of avenacinase CC (R85198) which detoxifies the triterpenoid saponin avenacin A-1 found in CC cat roots, by hydrolytic cleavage of the beta, 1-2 and beta, 1-4 linked CC terminal glucose mol. to give sequentially the mono- and biscode deglucosylated forms, both of which are substantially less toxic CC to fungal growth than avenacin A-1 itself. This deglycosylation is Sufficient to destroy the ability of the saponin to complex with membrane sterols. Saponin/sterol complexes in eukaryotic membranes results in pore CC formation and leakage of cell contents, with subsequent cell death. The CDNA and proteins of the invention are useful in identification of related CC cagents which can modulate SGH activity, e.g. for reducing pathogenicity CC of SGH-producing pathogens for specific hosts.
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Best Local
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                                                                                                                                                                                                                                                                                 New isolated saponin glycosyl hydrolase enzymes – used to develop prods. for the modification of microbial organisms and plants or \ensuremath{\mathsf{prods}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaeumannomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              avenacinase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Avenacinase-like protein - a saponin glycosyl hydrolase
                                                                                                                                                                                                                                        Claim 2; Fig 4d;
                                                                                                                                                                                                                                                                                                                                                                         Bowyer P,
                                                                                                                                                                                                                                                                                                                                                                                                      (GATS-) GATSBY CHARITABLE FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-MAR-1995;
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89 glclqdg 95
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pathogenicity of SGH-producing pathogens for specific hosts
                                                                                                                                                                                                                                                                                                                                                                         Daniels MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   793
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                                                                                                                                                                                                                                                                                                                                                                                                                                   94GB-0008573.
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                                                                                                                                                                                                                                        113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "unidentified residue, represented by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hydrolase; tomatinase; plant pathogenic fungi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein; 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "unidentified residue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unidentified residue, represented by full stop in the specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             full stop in the specification
                                                                                                                                                                                                                                                                                                                                                                         Osbourn AE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pore formation; cell death
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 16; Le. 1.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 793;
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RESULT 11
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recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whisple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TJ). The periand human zonulins, which is and human zonulins, which is a repared binding. They can be repared to the control of the control 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotect neuroprotective; dermatological; antiuleer; antiviral
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hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYMA-) UNIV MARYLAND BALTIMORE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |||:|||
| 89 glclqdg 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 GLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The peptide antagonists are based on a common motif of ZOT no zonulins, which is believed to be critical for receptor no zonulins be prepared by chemical synthesis or by use of the transfer number of the contract of the co
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 45; 69pp;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
Y79124
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Best Local
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                                                                                                                                                                                                                             which bind to a zonula occludens toxin (207) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of binding. They can be prepared by chemical synthesis or by use of the period of the p
                                                                        recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for the intestinal permeability and the peptide is useful for the conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-fit; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, ecsinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                           treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 47; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-205565/18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79124 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zonulin; antagonist; zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y79124;
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                                                                                                                                                                                                                                                                                                                                                                                                    sequence is that of a peptide antagonist of zonulin 25 such peptides (see Y79105-29) of the invention,
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Pred. No. 3.2e+05;
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             (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intesting inflammation, where they bind to the ZOT receptor in the intesting inflammation.
                                                                                                          This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                         Claim 1; Page 41;
                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by
                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                     Fasano
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antibacterial; cytostatic; anti-HIV; vulnerary; antia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y79106 standard; Peptide; 8 AA
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ain barrier;
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease, with Fontan's operation, mucosal diseases without ulceration, e.g. Menettier's disease, coeliac disease, eosinophilic gastroenteriis, and mmune diseases, coeliac disease, eosinophilic gastroenteriis, and mmune diseases.
                                                                                              The CZP2 DNA (Q70072) was prepd. by the cloning of CZP2(75-520) - Q81700 using the primers given in Q70073-74, CZP2(1-65) - Q81804 using the primers given in Q70082-83, CZP2(42-103) - Q81803 using the primers given in Q70079-81 and CZP2(487-713) - Q81957 using the primers given in Q70075-78.
                                                                    Sequence
                                                                                                                                                                                 Claim 1; Page 8-10; 10pp; Japanese.
                                                                                                                                                                                                            New DNA sequence encoding canine zona pellucida CZP2 - the prodn. of a canine contraceptive vaccine antigen
                                                                                                                                                                                                                                                                                                                                                                                                                 JP06189766-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Canine zona pellucida CZP2.
                                                                                                                                                                                                                                                                                                  (TOFU ) TONEN CORP.
                                                                                                                                                                                                                                                                                                                                                        25-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                     12-JUL-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canine; dog; zona pellucida; ZP; CZP2; contraceptive; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R60101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R60101 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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les 6; Conserv
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DB; Q70072.
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Similarity 6; Conser
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                                                                       713
  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                     AA;
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             76.1%;
75.0%;
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75.08;
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           Score
Pred.
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Pred. No. 3.2e+05;
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Mismatches
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             35;
              3.4e+02;
                          DB 15;
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Indels
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RESULT
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                                          Query Match
Best Local Similarity
Matches 6; Conser
                                                                                                                     A commercially available 16 week old canine ovarian cDNA expression library in lambda gtl1 was screened using antibodies raised against heat solubilised canine zona pellucida. The largest candidate clone was used to rescreen the library and to isolate clones which were used as probes in Southern hybridisations. Sequences coding for canine ZPA and ZPC proteins were obtained (Q65608 and Q65609, respectively). R55198 is the deduced amino acid sequence for ZPA.
                                                                                                                                                                                                                                                   Use of zona pellucida proteins and antibodies - for inducing reproducible transient infertility or permanent sterility in
                                                                                                                                                                                                                                                                                                                                                                   09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
                                                                                                  Sequence
                                                                                                                                                                                                                   Claim 40;
                                                                                                                                                                                                                                                                                       N-PSDB;
                                                                                                                                                                                                                                                                                                  WPI; 1994-183156/22
                                                                                                                                                                                                                                                                                                                       Harris JD,
                                                                                                                                                                                                                                                                                                                                                                                                    06-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dog; canine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canine zona pellucida 2PA protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R55198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R55198 standard; Protein; 715 AA
                                                                                                                                                                                                                                          female mammals
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 366
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                      1 GGLCVQDG 8
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gdlctqdg
                                                                                                                                                                                                                                                                                       Q65608
                                                                                                                                                                                                                  Page 88-90; 154pp; English
                                                                                                   715
                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        zona pellucida;
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 373
                                                                                                   AA;
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93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                    93WO-US10851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= canine_ZPA
                                                      76.1%;
75.0%;
                                                                                                                                                                                                                                                                                                                       Podolski JS;
                                            0,
                                                      Score 35; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZPA; immunocontraception
                                             Mismatches
                                                      DB 15;
3.4e+02;
                                                                Length 715;
                                            Indels
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                                          Gaps
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Search completed: June Job time: 380 sec

13, 2001,

14:14:39

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Title:
Perfect score:
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Maximum DB seq length: 200000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                  PIR_67:*
1: pir1:*
2: pir2:*
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Gapop 10.0 , Gapext 0.5
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SUMMARIES

29 34	28 34		26 34	25 34	24 34	23 34	22 34	21 34	20 34	19 34	w									9 36					4 38		2 41	1 41		NO SCORE	D > 1 :
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1 A48833				2 S51199			2 G01639				F7079		-												2 A43864	в8219	2 н81681		1	B T	
sperm-binding glyc	9	hypothetical prote				tryptophan 5-monoo	transmembrane prot	endonuclease III (N4-(beta-N-acetylg		cal pr	collagen alpha 1(i				hypothetical prote	~	thetical	Ř	HQRF1 protein - hu	3	hypothetical prote	Notch-1 protein -	Notch homolog Motc	zonula occludens t	a occlude	7	hypothetical prote	**************************************	Description	

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362	362	274	266	256	243	172	161	142	115	704	2108	1548	1492	1487	1031
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ilber protein - nu	fiber protein - hu	homoserine kinase	lipopolysaccharide	hypothetical prote	hypothetical prote	fibroblast growth	small basic protei	hypothetical prote	guanylin precursor	meprin A (EC 3.4.2	probable polyketid	serine proteinase	collagen alpha 1′(collagen alpha 1(I	hypothetical prote

ALIGNMENTS

	· ·			
mai protein 10028 [imported] - Chlamydia muridarum (Strain Nigg) C;Specles: Chlamydia muridarum, Chlamydia trachomatis MoPn C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-May-2000 C;Accession: H81681 R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hicke, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzbe, Nucleic Acids Res. 28, 1397-1406, 2000 A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39 A;Reference number: A81500; MUID:20150255 A;Accession: H81681 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-196 <tet> A;Cross-references: GB.AE002331; GB:AE002160; NID:97190662; PIDN:AAF39457.1; PID:9719 A;Experimental source: strain Nigg (MoPn) C;Genetics: A;Gene: TC0628 C;Superfamily: septum formation protein maf</tet>	Qy 1 GGLCVQDG 8	~. µ .	A;Accession: F/122 A;Status; preliminary A;Molecule type: DNA A;Residues: 1-196 <arnn 1-196="" <arnn="" a;cross-references:="" a;experimental="" a;gene:="" a;residues:="" c;genetics:="" c;superfamily:="" ct349="" cx="" d,="" formation="" gb:ae001273;="" gb:ae001308;="" maf<="" nid:g3328766;="" pid:g332="" pidn:aac67944.1;="" protein="" septum="" serotype="" source:="" strain="" td="" uw-3=""><td>RESULT 1 F71525 hypothetical protein CT349 - Chlamydia trachomatis (serotype D, strain UW3/Cx) C; Species: Chlamydia trachomatis C; Species: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 08-Oct-1999 C; Accession: F71525 R; Stephens, R.S.; Kalman, S.; Lammel, C.J.; Fan, J.; Marathe, R.; Aravind, L.; Mitche Science 282, 754-759, 1998 A; Title: Genome sequence of an obligate intracellular pathogen of humans: Chlamydia t. A; Reference number: A71570; MUID:99000809</td></arnn>	RESULT 1 F71525 hypothetical protein CT349 - Chlamydia trachomatis (serotype D, strain UW3/Cx) C; Species: Chlamydia trachomatis C; Species: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 08-Oct-1999 C; Accession: F71525 R; Stephens, R.S.; Kalman, S.; Lammel, C.J.; Fan, J.; Marathe, R.; Aravind, L.; Mitche Science 282, 754-759, 1998 A; Title: Genome sequence of an obligate intracellular pathogen of humans: Chlamydia t. A; Reference number: A71570; MUID:99000809

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A; Experimental sour
C; Genetics:
A; Gene: VC1458
A; Map position: 1
                                                       RESULT
A48825
                                                                                                                                                                                                                                                                                                                                                                                      R;Baudry, B.; Fasano, A.; Ketley, J.; Kaper, J.B. Infect. Immun. 60, 428-434, 1992
A;Title: Cloning of a gene (zot) encoding a new ta;Reference number: A43864; MUID:92112300
A;Accession: A43864
   C; Date: 01-Dec-1993
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                                                                                                                                                                                                                                                                                              A;Cross-references: GB:M83563; NID:g155314; PIDN:AAA27582.1; PID:g155315
A;Note: sequence extracted from NCBI backbone (NCBIN:77488, NCBIP:77491)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Vibrio cholerae
C;Date: 10-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
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Best Local Similarity
"hes 7; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae. A;Reference number: A82035; MUID:20406833 A;Accession: B82197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Heidelberg, J.F.; Elsen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I l, R.R.; McKalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
                     Notch homolog Motch protein - mouse (fragment) C; Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-399 <BAU>
                                                                                                                                                                                                                                                                                                                                                                           A;Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Accession: A43864
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A; Residues: 1-399 <HEI>
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                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Species: Vibrio cholerae
:Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2000
:Accession: B82197
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#sequence_revision 18-Nov-1994 #text_change 13-Aug-1999
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87.5%;
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87
                                                                                                                                                                                                                                                                                                                                                                                                            (zot) encoding a new toxin MUID: 92112300
                                                                                                                                                                                                                         5.69
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                                                                                                                                                                                                       Score 38; DB
Pred. No. 9.1;
0; Mismatches
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I.; Sellers,
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C.Superfamily: unassigned ankyrin repeat F;106-138/Domain: EGF homology <EGF1>F;144-175/Domain: EGF homology <EG01>F;244/Domain: EGF homology <EG02>F;261-992/Domain: EGF homology <EG02>F;339-370/Domain: EGF homology <EG03>F;416-449/Domain: EGF homology <EG03>
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A; Note: sequence extracted from NCBI backbone (NCBIP:119144)
C; Superfamily: unassigned ankyrin repeat proteins; ankyrin re
F; 26-57/Domain: EGF homology <EGFX)>
F; 64-95/Domain: EGF homology <EGXI>
F; 198-229/Domain: EGF homology <EGF2>
F; 441-472/Domain: EGF homology <EGX2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: mRNA
A;Residues: 1551-2108,'Q',2110-2114,'ALP',2118-2170 <FRA>
A;Cross-references: EMBL:Z11886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:Z11886; GB:S47228; NID:g288502; PIDN:CAA77941.1; PID:g288503 A;NOte: sequence extracted from NCBI backbone (NCBIP:127318)
A;Note: sequence extracted from NCBI backbone (NCBIP:127318)
R;Franco del Amo, F.; Smith, D.E.; Swiattek, P.J.; Gendron-Maguire, M.; Greenspan, R submitted to the EMBL Data Library, April 1992
A;Description: Expression pattern of Motch, a mouse homolog of Drosophila Notch, swapperson of the control of the cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Title: Cloning, analysis, A; Reference number: A46019; A; Accession: A46019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;del Amo, F.F.; Gendron-Maguire, M.; Swiatek, P.J.; Jenkins, N.A.; Copeland, N.G.; Genomics 15, 259-264, 1993
                                                                    F;873-904/Domain:
                                                                                                                                      F;757-788/Domain:
                                                                                                                                                                      F;682-713/Domain:
                                                                                                                                                                                                                                               F;532-563/Domain:
                                                                                                                                                                                                                                                                                F;494-525/Domain:
                                                                                                                                                                                                                                                                                                                F;456-487/Domain:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Date: 22-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 20-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N; Alternate names: motch protein C; Species: Mus musculus (house mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Gene: notch-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-2531 <DEL>
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                                                                                                                                                                                                           :607-638/Domain:
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75.0%;
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<EG12>
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                                                                 <EG11>
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R. J

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F;1949-1981/Domain: E
F;1983-2015/Domain: E
F;2016-2048/Domain: E
F;2049-2081/Domain: &
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F;1233-1264/Domain:
F;1353-1383/Domain:
F;1391-1425/Domain:
F;1391-1425/Domain:
                                                                       R:Weston, K.; Barrell, B.G.
J. Mol. Biol. 192, 177-208, 1986
A;Title: Sequence of the short unique region,
A;Reference number: A92935; MUID:87169717
A;Accession: C27349
A;Molecule type: DNA
A;Residues: 1-788 <WES>
                                                                                                                                                                             N;Alternate names: hypothetical protein TRS1
C;Species: human cytomegalovirus, human herpesvirus 5
C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1989 #text_change
C;Accession: C27349; S09951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Experimental source: cultivar C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypothetical protein F16L2.50 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
C;Accession: T47524
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F;1025-1056/Domain
                         A;Cross-references: EMBL:X04650; NID:g59801; PIDN:CAB37121.1; A;Experimental source: strain AD169 R;Chee, M.S.; Bankier, A.T.; Beck, S.; Bohni, R.; Brown, C.M.
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A; Introns: 233/3;
A; Note: F16L2.50
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A;Residues: 1-633 <JOR>
A;Cross-references: EMBL:AL162459
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A; Accession: T47524
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Immunol. 154, 125-169,
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75.0%;
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Y <EGF4>
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Pred. No.
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Pred. No.
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<AN3>
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<AN5>
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                            C.M.; Cerny, R.;
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Xin protein, stage early embryo - mouse
C;Speciaes: Mus musculus (house mouse)
C;Date: 20-Sep-1999 #sequence_revision
C;Accession: T14267
R;Wang, D.Z.; Lin, J.J.C.
submitted to the EMBL Data Library, Mar
                                                                                                               RESULT
T14267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: Sequence of the short unique region, short repeats, A;Reference number: A92935; MUID:87169717 A;Accession: C26078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HQRF1 protein - human cytomegalovirus (strain AD169)
N;Alternate names: hypothetical protein IRS1
C;Species: human cytomegalovirus, human herpesvirus 5
C;Date: 30-Sep_1989 #sequence_revision 30-Sep-1989 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Experimental source: strain AD169 R; Chee, M.S.; Bankier, A.T.; Beck,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-788 <CHE>
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Curr. Top. Microbiol. Immunol. 154, 125-169,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-846 <WES>
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J. Mol. Biol. 192, 177-208, 1986
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                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: this sequence was submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Experimental source: strain AD169
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Best Local
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                                                                                         stage early embryo - mouse
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85.7%;
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A; Gene: mtlD; C; Superf
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A;Introns: 45/3; 63/1; 114/3; 143/3; 225/3
C;Superfamily: ribitol dehydrogenase; short-chain alcohol dehydrogenase homology
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A; Reference number: 217948
A; Accession: T14267
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1-1677 < WANN
A; Cross-references: EMBL: AF051945; NID: 92970645; PID: 92970646; PIDN: AAC06023.1
A; Experimental source: cardiac muscle; stage early embryo
                                                                 A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-491 <STO>
A;Cross-references: GB:AE004660; GB:AE004091; NID:g9948372; PIDN:AAG05730.1; GSPDB:GN00:
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                                                                                                                                                                                                                         R;Stover, C.K.; Pham, X.Q.; Erwin, adman, S.; Yuan, Y.; Brody, L.L.; C.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                  C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
                                                                                                                                                                                                                                                                                                                                           mannitol dehydrogenase PA2342 [imported] - Pseudomonas aeruginosa (strain PAO1)
C:Species: Pseudomonas aeruginosa
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A;Gene: CESP:Y39A1A.11
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                                                           A; Experimental source: strain PAO1
                                                                                                                                                            A; Reference number: A82950; A; Accession: D83353
                                                                                                                                                                                                    A; Title: Complete genome
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A;Experimental source: clone Y39A1A
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6; Conser
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conserved hypothetical protein YEL070w
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                                                                                                                                                                                   sequence of Pseudomonas aeruginosa PA01, an opportunistic path
50; MUID:20437337
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75.0%;
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75.0%;
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Pred.
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A.; Larbig,
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K.; Lim,
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zona pellucida glycoprotein A - cat
C;Species: Felis silvestris catus (domestic cat)
C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997
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R; Harris, J.D.; Hibl
DNA Seq. 4, 361-393,
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C;Species: Canis lupus familiaris (dog.
C;Date: 28-Oct_1996 #sequence_revision
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C; Accession: S70398
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A; Residues: 1-715 <HAR>
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A; Residues: 1-680 <SEN>
A; Cross-references: EMB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      uence of a human tumorigenic z20876; MUID:96325459
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R; Harris, J.D.;

Hibler,

D.W.; Fontenot, G.K.; Hsu,

K.T.; Yurewicz, E.C.; Sacco,

A.G

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GenCore version Copyright (c) 1993 - 2000

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NCB1_YEAST
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WIF11_HUMAN
WIF1_MOUSE
FP2_MYTGA
APB3_MOUSE
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URE1_CLOPE
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p48825 aspergillus
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Q09907 schizosacch
p17752 homo sapien
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p09810 rattus norv
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P316394
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SEQUENCE FROM N.A.

STRAIN-EL TOR N16961 / SEROTYPE 01;

MEDLINE-20406833; PubMed-10952301;

MEDLINE-20406833; PubMed-10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,

McDonald L., Utterback T., Fleisbnann R.D., Nierman W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,

Fraser C.M.;

CHARACTERIZATION.
MEDLINE=91271365; PubPrasano A., Baudry B.,

PubMed=2052603;

Pumplin D.W., Wasserman

S.S.,

Tall B.D.,

Nature [6]

"DNA sequence of both chromosomes cholerae.";

of the cholera pathogen Vibrio

406:477-483(2000).

Kan B., Li Submitted [5]

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EMBL/GenBank/DDBJ databases				Bank/DDBJ da	e from Vibrio cholerae	€					2 isolated in	lucic of the						A new toxin produced	1					subdivision; Vibrionaceae;			IXOT	annotation undate)			,	399 AA		ALIGNMENTS				A						
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Matches 7
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TISSUE-Embryo;
MEDLINE-93194170; PubMed-8449489;
MEDLINE-93194170; Gendron-Maguire
                                                                                                                                                                                                                                                                                                                                                                                                                          001705;
01-NOV-1995 (Rel. 32, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
NEUROGENIC LOCUS NOTCH HOMOLOG PROTEIN 1 PRECURSOR (MOTCH PROTEIN).
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VARIANT
                 TISSUE-Embryo;
MEDLINE-93048835; PubMed-1425352;
Franco del Amo F., Smith D.E., Swiatek
Greenspan R.J., McMahon A.P., Gridley
                                                                                                                                                                           Franco del Amo F. Gendron-Maguire N
Copeland N.G., Gridley T.;
"Cloning, analysis, and chromosomal
homolog of Drosophila Notch.";
                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
Eukaryota; Metazoa; (
Mammalia; Eutheria; I
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                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOUSE
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      "Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291 GRLCVQDG
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AAF94615.1; -.
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IKTENDKKGLNSIF -> VKKEKEESSIKSFL (1
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PROSITE; PS50297; ANK_REP_REGION; 1.
PROSITE; PS00010; ASX_HYDROXYL; 22.
PROSITE; PS00022; EGF_1; 34.
PROSITE; PS01186; EGF_2; 27.
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PROSITE; PS01187; Eurogenesis;
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RY MEDLINE-90269039; PubMed-2161319;

RA MEDLINE-90269039; PubMed-2161319;

RA Chee M.S., Bankier A.T., Beck S., Bohni R., Brown C.M., Cerny R.,

RA Horsnell T., Hutchison C.A. III, Kouzarides T., Martignetti J.A.,

RA Preddie E., Satchwell S.C., Tomlinson P., Weston K.M., Barrell B.G.;

RT "Analysis of the protein-coding content of the sequence of human

RT cytomegalovirus strain AD165.";

RL Curr. Top. Microbiol. Immunol. 154:125-169(1990).

CC -!- SIMILARITY: BELONGS TO THE US22 FAMILY.

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MEDLINE-87169717; PubMed-3031311;
Weston K., Barrell B.G.;
Weston K., Barrell B.G.;
"Sequence of the short unique region,
long repeats of human cytomegalovirus.
J. Mol. Biol. 192:177-208(1986).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-90269039; PubMed-2161319; Chee M.S., Bankier A.T., Beck S., Bohni R., Brown C.M., Cern Chee M.S., Bankier A.T., Beck S., Bohni R., Brown C.M., Cern Horsnell T., Hutchison C.A. III, Kouzarides T., Martignetti Preddie E., Satchwell S.C., Tomlinson P., Weston K.M., Barre Panalysis of the protein coding content of the sequence of Panalysis of the protein coding content of the sequence of Panalysis of the protein and 154.125-1690).
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Viruses; dsDNA viruses, no RNA stage;
Betaherpesvirinae; Cytomegalovirus.
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email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001507; -...
Pfam; PF00100; zona_pellucida;
PRINTS; PF00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a use by non-profit institutions as long as i
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Cloning and characterization of zona pellucida genes and a variety of mammalian species: the ZPA, ZPB and ZPC gene DNA Seq. 4:361-393(1994).
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Harris J.D., Hibler
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er D.W., Fontenot
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Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
-I- FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA,
WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED B
ZP2 ACTS AS A SECONDARY SPERM RECEPTOR.
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P47984;
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use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
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Eukaryota; Metazoa; Chordata; (
Mammalia; Eutheria; Carnivora;
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01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 2 PRECURSOR
                                                                                               SIGNAL
                                                                                                         Extracellular matrix.
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PROSITE; PS00682; ZP_DOMAIN; 1.
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                                                   ZONA PELLUCIDA SPERM-BINDING EXTRACELLULAR (POTENTIAL). POTENTIAL. CYTOPLASMIC (POTENTIAL).
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                                                                                                                                 Hydrolase;
SIGNAL
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Gene 173:287-288(1996).
-!- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCIN
GLUCOSE RESIDUES WITH RELEASE OF BETA-D-GLUCOSE.
-!- PATHWAY: CELLULOSE DEGRADATION.
-!- SIMILARITY: BELONGS TO FAMILY 3 OF GLYCOSYL HYDROLASES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BGL1_ASPAC
P48825;
                                                                                                                                                            Pfam; PF00933; Glyco_hydro_3; 1. Pfam; PF01915; Glyco_hydro_3_C; PRINTS; PR00133; GLHYDRLASE3.
                                                                                                                                                                                                                                    modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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OOi T., Arai M.;
"Cloning and sequencing
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01-FEB-1996 (Rel. 33, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
BETA-GLUCOSIDASE 1 PRECURSOR (EC 3.2.1.21) (G
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                                                                                                                                                                                              InterPro; IPR002772; -
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01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 35, Last annotation update)
N4-(BETA-N-ACETYLGLUCOSAMINYL)-L-ASPARAGINASE PRE
(GLYCOSYLASPARAGINASE) (ASPARTYLGLUCOSAMINIDASE)
GLUCOSAMINYL)-L-ASPARAGINE AMIDASE) (AGA).
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                      This SWISS-PROT entry is copyright. It is produble between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a use by non-profit institutions as long as i modified and this statement is not removed. Usentities requires a license agreement (See http. or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                     meningosepticum glycosylasparaginase: a s and beta subunits.";
                                                                                                                                                                                                                               Protein
                                                                                                                                                                                                                                                                                                                                        MEDLINE=94071939; PubMed=8250923; Tarentino A.L., Plummer T.H. Jr.; Tarentino A.L., Plummer Of a procaryotic glycosylasparaginase."; "The first demonstration of a procaryotic glycosylasparaginase."; Biochem. Biophys. Res. Commun. 197:179-186(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND PARTIAL S STRAIN-ELDER / ATCC 33958; MEDLINE-95142655; PubMed-7840643;
                                                                                                                                                                                                                                                    "Crystal structure of glycosylasparaginase meningosepticum.";
                                                                                                                                                                                                                                                                               Guan C
                                                                                                                                                                                                                                                                                        Xuan J., Tarentino
                                                                                                                                                                                                                                                                                                     MEDLINE-98200483; PubMed-9541410
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 46-59 AND 197-211
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chryseobacterium.
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                                                                                                                    THE GLYCOSYLATED ASPARAGINE LINKED GLYCOPROTEINS. REQUIRES THAT THE GLYCOSYLATED ASPARAGINE MOIETY IS NOT SUBSTITUTED ON ITS AMINO (R1) AND CARBOXYL (R2) TERMINUS.

CATALYTIC ACTIVITY: N4-(BETA-N-ACETYL-D-GLUCOSAMINYL)-L-ASPARAGINE + H(2)O = N-ACETYL-BETA-GLUCOSAMINYLAMINE + L-ASPARATE.

SUBGNIT: HETERODIMER OF AN ALPHA AND A BETA CHAINS.

SUBCELLULAR LOCATION: PERIPLASMIC.

SIMILARITY: BELONGS TO THE ASPARAGINASE 2 FAMILY.
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71.48;
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Pfam; PF00730; Endonuc
PROSITE; PS00764; ENDO
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Q09907;
Q1-FEB-1996
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Roldan-Arjona T., Anselmino C., Lindahl T.;
Roldan-Arjona T., Anselmino C., Lindahl T.;
"Molecular cloning and functional analysis of a Schizosaccharomyces pombe homologue of Escherichia coli endonuclease III.";
Nucleic Acids Res. 24:3307-3312(1996).
-I- FUNCTION: HAS BOTH AN APURINIC AND/OR APYRIMIDINIC ENDONUCLEASE ACTIVITY AND A DNA N-GLYCOSYLASE ACTIVITY ON DIFFERENT TYPES OF DNA SUBSTRATES WITH PYRIMIDINES ACTIVITY ON DIFFERENT TYPES OF DNA SUBSTRATES WITH PYRIMIDINES
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Pfam; PF01112; Asparaginase_2;
                                                EMBL; Z67961; CAA91893 1;
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                                                                                                                                                                                                                                                                                                                                                                                      Pearson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota;
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                                                                                                                        s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no resti
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COFACTOR: BINDS A 4FE-4S CLUSTER WHICH IS NOT IMPOR CATALYTIC ACTIVITY, BUT WHICH IS PROBABLY INVOLVED POSITIONING OF THE ENZYME ALONG THE DNA STRAND (BY SIMILARITY: BELONGS TO THE NTH/MUTY FAMILY.
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III HOMOLOG (EC 4.2.99.18) (DNA-
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Matches 5
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SEQUENCE 3
                                                                                                                                                                                                                                                                                                       "Cloning and expression of rabbit and human brain tryptophan hydroxylase cDNA in Escherichia coli.";
Arch. Biochem. Biophys. 315:445-453(1994).

-I- CATALYTIC ACTIVITY: L-TRYPTOPHAN + TETRAHYDROPTERIDINE + O(2) = 5-HYDROXY-L-TRYPTOPHAN + DIHYDROPTERIDINE + H(2)O.

-I- COEACTOR: FERROUS ION.

-I- PATHWAY: THIS IS THE RATE-LIMITING ENZYME IN THE BIOSYNTHESIS OF SEROTONIN IN THE CENTRAL NERVOUS SYSTEM AND CATALYZES THE FIRST STEP OF THE SYNTHESIS OF MELATONIN IN THE PINEAL GLAND.

-I- SUBUNIT: MULTIMER OF IDENTICAL SUBUNITS.

-I- SUBUNIT: BELONGS TO THE BIOPTERIN-DEPENDENT AROMATIC AMINO ACI
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P17752; Q16
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Interpro; IPR001273; -.
Interpro; IPR002912; -.
Pfam; PF01842; ACT; 1.
Pfam; PF00351; blopterin_H; 1.
PRINTS; PR00372; FYWHYDRXLASE.
                                                                          PIR; S10489; S10489.
HSSP; P04177; 1TOH.
MIM; 191060; -.
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MEDLINE-9033431; PubMed-2377472;

Boulalard S., Darmon M.C., Ganem Y., Launay J.M., Mailet J.;

"Complete coding sequence of human tryptophan hydroxylase.";

"Nucleic Acids Res. 18:4257-4257(1990).
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01-NGC-1990 (Rel. 15, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
TRYPTOPHAN 5-MONOOXYGENASE (EC 1.14.16.4) (TRYPTOPHAN 5-HYDROXYLASE)
                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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EMBL; L29306; AAA67050.1;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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355 AA; 40226 P
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IRON-SULFUR (4FE-4S) (BY SIMILARITY).
226 MW; D2EBC93AODFA6OEB CRC64;
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-!- CATALYTIC ACTIVITY: L-TRYPTOPHAN + TETRAHYDROPTERIDINE 5-HYDROXY-L-TRYPTOPHAN + DIHYDROPTERIDINE + H(2)0.
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01-AUG-1990 (Rel. 15, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation updat
TRYPTOPHAN 5-MONOOXYGENASE (EC 1.14.16.4) (
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9986;
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       COFACTOR: FERROUS ION.

PATHMAY: THIS IS THE RATE-LIMITING ENZYME
SEROTONIN IN THE CENTRAL NERVOUS SYSTEM AN
STEP OF THE SYNTHESIS OF MELATONIN IN THE
SUBUNIT: MULTIMER OF IDENTICAL SUBUNITS.
SIMILARITY: BELONGS TO THE BIOPTERIN-DEPEN
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Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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SEQUENCE OF 167-261 FROM N.A. SEQUENCE OF 167-261 FROM N.A. MEDLINE-87005247; PubMed-2875901; Darmon M.C., Grima B., Cash C.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001273; -.
InterPro; IPR002912; -.
Pfam; PF01842; ACT; 1.
Pfam; PF00351; biopterin_H; 1.
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PIR; /
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                                  Brain
[3]
                                                      Kim K.S., Wessel T.C., Stone "Molecular cloning and chara hydroxylase from rat central
                                                                                                                                                            SEQUENCE FROM N.A.
STORMATH-WISTAR; TISSUE-Pineal
                                                                                                                                                                                                                                                     01-MAR-1989 (Rel. 10, Created)
01-CCT-1989 (Rel. 12, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
TRYPTOPHAN 5-MONOOXYGENASE (EC 1.14.16.4) (TRYPTOPHAN
                                                                                     SEQUENCE FROM N.A. MEDLINE-91245924; PubMed-1645430;
                                                                                                                                                     STRAIN-WISTAR; TISSUE-Pineal gland; MEDLINE-88244702; PubMed-3379411;
                                                                                                                                                                                                 Mammalia; Eutheria;
NCBI_TaxID=10116;
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                                                                                                                                   "Sequence
                                                                                                                                            Darmon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
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rPro; IPR001273;
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                                                                                                                      Guibert B., Leviel two mRNAs encoding 51:312-316(1988).
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                                            Brain
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                                                                                                                                                                                                              Chordata;
Rodentia;
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85.7%;
                                            Res.
                                                                Stone D.M., Carve characterization
                                       aracterization of ral serotonergic no 9:277-283(1991).
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IRON (BY SIMILARITY).
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IRON (BY SIMILARITY).
M -> L (IN REF. 1).
L -> S (IN REF. 2).
KY -> ND (IN REF. 2).
R -> Q (IN REF. 2).
T -> K (IN REF. 1).
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Serotonin biosynthesis;
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Best Local S
Matches 6
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-i- CAPALYTIC ACTIVITY: L-TRYPTOPHAN - 5-HYDROXY-L-TRYPTOPHAN + DIHYDROP
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MOD_RES

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                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=90243261; Stoll J., Kozak C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00351; biopterin_H; 1.
PRINTS; PR00372; FYWHYDRXLASE.
PROSITE; PS00367; BIOPTERIN_HYDROXYL;
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Pfam;
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PIR;
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and phenylalanine hydroxylases."
FEBS Lett. 206:43-46(1986).
-I- CATALYTIC ACTIVITY: L-TRYPTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; M28000;
EMBL; X53501;
                                                                                                                                                                                                                                                                       NCBI_TaxID=10090;
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PATHWAY: THIS IS THE RATE-LIMITING ENZYME IN THE BIOSYNTHESIS SEROTONIN IN THE CENTRAL NERVOUS SYSTEM AND CATALYZES THE FIRS STEP OF THE SYNTHESIS OF MELATONIN IN THE PINEAL GLAND.

SUBUNIT: MULTIMER OF IDENTICAL SUBUNITS.

SIMILARITY: BELONGS TO THE BIOPTERIN-DEPENDENT AROMATIC AMINO
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5-HYDROXY-L-TRYPTOPHAN +
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A60034; A60034.
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6; Conservative
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; IPR001273; -.
; IPR002912; -.
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CAA37579.1;
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33;
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HSSP; P04177; 1TOH.
MCD; MGI:98796; Tph.
InterPro; IPR001273; -
InterPro; IPR002911; -
Pfam; PF01842; ACT; 1.
Pfam; PF00351; blopterIn_H; 1.
                                                                                                            STRAIN-NEW ZEALAND WHITE; TISSUE-OVARY; MEDLINE-93286072; PubMed-7685342; Lee V.H., Schwoebel E.D., Prasad S.V., Cook R.G., Dunbar B.S.;
                                                                                                                                                                                            ZP2 OR ZPA.

Oryctclagus cuniculus (Rabbit).

Eukaryota; Metazoa; Chordata; CI
Mammalla; Eutheria; Lagomorpha;

NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                              01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 2 (ZONA PELLUCIDA GLYCOPROTEIN 2, CONA PELLUCIDA PROTEIN A) (75 KDA ZONA PELLUCIDA PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METAL
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
              "Identification and structural characterization of the 75-kDa zona pellucida protein.";
J. Biol. Chem. 268:12412-12417(1993).
-I- FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA, I WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY WHICH ZP2 AND ZP3 COMPLEX INTO MODERN COMPLIANTY).
-I- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; J04758; AAA63401.1; -. PIR; A34582; A34582.
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PATHWAY: THIS IS THE RATE-LIMITING ENZYME IN THE BIOSYNTHESIS OF
SEROTONIN IN THE CENTRAL NERVOUS SYSTEM AND CATALYZES THE FIRST
STEP OF THE SYNTHESIS OF MELATONIN IN THE PINEAL GLAND.
SUBUNIT: MULTITMER OF IDENTICAL SUBUNITS.
SIMILARITY: BELONGS TO THE BIOPTERIN-DEPENDENT AROMATIC AMINO ACHYDROXYLASES FAMILY.
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IRON (BY SIMILARITY).
IRON (BY SIMILARITY).
IRON (BY SIMILARITY).
; 16C839F22A138BCA CRC64;
                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; a; Leporidae; Oryctolagus.
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             Loftus B.J.,
Fuhrmann J.,
                                                                     SEQUENCE FROM
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                                                MEDLINE-99425270;
                                                                                          ulang L.-F., Dean J.; "Conservation of mammalian secondary sperm receptor genes enables promoter of the human gene to function in mouse occytes."; Dev. Biol. 156:399-408(1993).
                                                                                                                                                                             MEDLINE=93215931;
                                                                                                                                                                                                                                                                     Mammalia;
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EB-1994 (Rel. 28, Last sequence update)
EB-1904 (Rel. 40, Last annotation update)
CT-2000 (Rel. 40, Last annotation update)
PELLUCIDA SPERM-BINDING PROTEIN 2 PRECURSOR
OPROTEIN ZP2) (ZONA PELLUCIDA PROTEIN A).
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een the Swiss Institute of Bioinformatics
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Chordata;
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                            Kim U.-J.,
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32; zP_DOMAIN; 1
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PubMed=10493829;
U.-J., Sneddon V.P., Kalush F
                                                                                                                                                            PubMed=8385033;
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Catarrhini;
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                                                                                                                                                                                                                                                                                      Vertebrata;
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Search completed: June 13, 2001, 14:21:48 Job time: 808 sec
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Best Local Similarity 75.0%;
Matches 6; Conservative
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-I- TISSUE SPECIFICITY: OOCYTES.

-I- DEVELOPMENTAL STAGE: EXPRESSED DURING THE 2-WEEK GROWTH PHASE OOGENESIS, PRIOR TO OVULATION.

-I- PTM: IS PROTEOLYTICALLY CLEAVED AFTER FERTILIZATION, AND THIS MODIFICATION, ALONG WITH PRESUMED CHANGES IN ZP3 MAY PLAY AN IMPORTANT ROLE IN THE POSTFERTILIZATION BLOCK TO POLYSPERMY.

-I- PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
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-I- FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA, IN
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SEQUENCE
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DOMAIN
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SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
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Q11308 molluscum
Q99187 molluscum c
Q99466 homo sapien
Q99940 homo sapien
Q09306 homo sapien
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0912u6 arabidopsis

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                                                                                                                                                                                                                                                            "Genome sequence of an obligate intracellular pathogen of humans: Chlamydia trachomatis.";
Science 282:754-759(1998).
EMBL; AE001308; AAC67944.1; -.
SEQUENCE 196 AA; 21978 MW; E0B6CFFD52F93073 CRC64;
                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-D/UW-3/CX;
MEDLINE-99000809; PubMed-9784136;
Stephens R.S., Kalman S., Lammel C.J., Familtchell W.P., Olinger L., Tatusov R.L.,
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01-NOV-1998 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
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Bacteria; Chlamydiales;
NCBI_TaxID=813;
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Chlamydia muridarum.
Bacteria; Chlamydiales; CNLAMYDIA.
NCBI_TaxID-83560;
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                                                                                                                 EMBL; AF
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                                                                                                                           mimicus and V. cholerae.";
Infect. Immun. 68:1507-1513(2000).
EMBL; AF207857; AAF40142.1; -.
                                                                                                                                                       "inrectious CTXPhi and the vibrio pathogenicity vibrio minicus: evidence for recent horizontal t
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                                                                                                                                                                     Boyd E.F., Moyer K.E., Shi L., Waldor M.K.; "Infectious CTXPhi and the vibrio pathogeni
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Q9R3V6;
Q9R3V6;
Q1-MAY-2000 (TrEMBLrel. 13, Crea.
Q1-NAY-2000 (TrEMBLrel. 13, Last.
Q1-OCT-2000 (TREMBLrel. 15, Last.
Q1-OCT-2000 (TREMBLREL. 15, Last.
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STRAIN-019-TOR OGAWA;
Zhi-Yong H., Wei-Jie Z., X
"Cloning and Expression of
Submitted (JAN-1999) to th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

STAIN-EL TOR N16961 / SEROTYPE 01;

MEDLINE-20406833; PubMed-10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.I.

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Oln H., Dragoi I., Seiler

McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J

Fraser C.M.;
                                                                                                                                                                                                                                        Q9L7Q6
Q9L7Q6;
01-0CT-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-KNIH002;
Shin H.J., Park Y.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Proteobacteria;
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EMBL; AF123049; AAD26854.1;
EMBL; AE004224; AAF94615.1;
TIGR; VC1458; -.
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                                                                                                          Vibrio cholerae.
Bacteria; Proteobacteria;
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01-OCT-2000
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                        STRAIN-86015;
                                                                                   NCBI_TaxID=666;
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Best Local S
Matches 6
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MEDLINE-96112750; Pubmed-8664505;

A OSBOURN A., Bowyer P., Lunness P., Clarke B., Daniels M.;

Pungal pathogens of oat roots and tomato leaves employ cl

related enzymes to detoxify different host plant saponins.

Mol. Plant Microbe Interact. 8:971-978(1995).

REMBL; U35463; AAB09777.1; -

REMBL; U35463; AAB09777.1; -

REMBL; 20854; Gaegr;3099;20854.

RITTERPRO; IPR001764; -

RITTERPRO; IPR002772; -

REMBL; PFAM; PF00933; Glyco_hydro_3; 1.

PFAM; PF01915; Glyco_hydro_3; 1.

PFAM; PF01915; Glyco_hydro_3; 1.

PFAM; PF01915; Glyco_hydro_3; 1.

PROSITE; PS00775; GLYCOSYL_HYDROL_F3; 1.

PROSITE; PS00775; GLYCOSYL_HYDROL_F3; 1.
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Best Loc
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Q9QW58;
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MOTCH-NOTCH
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AVENACINASE.
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Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF220606; AAF29547.1; -.
SEQUENCE 399 AA; 44990 MW; CF6A3DBCC9E23EE1 CRC64;
SEQUENCE FROM N.A.

MEDLINE-93050801; PubMed=1426644;

Reaume A.G., Conlon R.A., Zirngibl R., Yam

"Expression analysis of a Notch homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q00903;
                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10095;
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Eukaryota; Fungi; Ascomycota; Ascomycota
Magnaporthaceae; Gaeumannomyces.
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PRINTS; PRO0011; EGFLAMINUL; 7.
PROSITE; PS00010; ASX_HYDROXYL; 7.
PROSITE; PS00022; EGF_1; UNKNOWN_13.
PROSITE; PS01186; EGF_2; 9.
PROSITE; PS01187; EGF_CA; 7.
SEQUENCE 861 AA; 92706 MW; 84BAEB9
   070373
070373;
01-AUG-1998
01-AUG-1998
01-MAY-2000
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INTERPRO; IPR001438; -.
INTERPRO; IPR001881; -.
INTERPRO; IPR002049; -.
PFAM; PF00008; EGF; 14.
PFAM; PF00066; notch; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arabidopsis thaliana (Mouse-ear cress).

Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;

Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;

Brassicales; Brassicaceae; Arabidopsis.

NCBI_TaxID=3702;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EU Arabidopsis sequencing project; Submitted (APR-2000) to the EMBL/GenBank/DDBJ EMBL; AL162459; CAB82808.1; -.
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01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
HYPOTHETICAL 71.7 KDA PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hypothetical
SEQUENCE 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jordan N., Bangert S., Wiedelmann R., Voss H., Rudd S., Lemcke K., Mayer K.F.X., Quetier F., Submitted (MAR-2000) to the EMBL/GenBank/DDBJ of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9LZU6
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IPR000561; -.
IPR000742; -.
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633 AA; 71695 MW;
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                                                                                                                                      PRELIMINARY;
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75.0%;
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Pred. No.
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Pred.
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No.
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RESULT 11
Q9XX28
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Matches
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SEQUENCE FROM N.A.
MEDLINE-97237046; PubMed-9119394;
MEDLINE-97237046; P.J., Cooper P.R., M.
Stankovic T., Byrd P.J., Cooper P.R., M.
Riley J.H., Watts G.D.J., Ambrose H., M.
Sutcliffe A., Mills T., Taylor A.M.R.;
"Construction of a transcription map ar
telanglectasia: identification of at lea
Genomics 40:267-276(1997).
EMBL; x99962; CAA68227.1; -.
HSSP, P05713; 3RAB.
HSSP, P05713; 3RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wang D.-Z., Lin J.J.-C.;
Submitted (MAR-1998) to the
EMBL; AF051945; AAC06023.1;
MGD; MGT:1333878; Xin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-CARDIAC MUSCLE;
Wang D.-Z., Hu X., Lin J.L.
Front. Biosci. 1:0-0(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                            014964;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence up
01-OCT-2000 (TrEMBLrel. 15, Last annotation
RAB-RELATED GTP-BINDING PROTEIN (FRAGMENT).
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NON_TER
SEQUENCE
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TISSUE-CARDIAC MUSCLE;
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                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                 PFAM; PF00071;
                                                                                                                                                                                                            INTERPRO;
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6; Conservative
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5; Conserv
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   PRELIMINARY;
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24869 MW;
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75.0%;
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62.5%;
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Last annotation update)
                                                                                                            Score 35;
Pred. No.
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Sciurognathi; Muridae;
   PRT;
                                                                                                                                                       AA9A29731F42B8F5
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                                                                                                   Mismatches
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    296
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McGuire G.,
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1.1e+02;
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                                                                                                                                                                                                                                                                                        Smith
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; Murinae; Mus
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PRINTS; PROODED; GDHRDH.
PRINTS; PRO1167; INSADHFAMILY.
PRINTS; PS01061; ADH_SHORT; UN
PROSITE; PS00061; ADH_SHORT; UN
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O1-NOV-1999 (TrEMBLrel. 1
O1-NOV-1999 (TrEMBLrel. 1
O1-OCT-2000 (TrEMBLrel. 1
Y39A1A.11 PROTEIN.
Y39A1A.11.
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HSSP; P19992; 1HDC
INTERPRO; IPR002198; -.
INTERPRO; IPR002347; -.
INTERPRO; IPR002424; -.
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Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulso,
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston J.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownke
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Wattson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 Mb of contiguous nucleotide sequence from chromosome III of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wall M.;
"2.2 Mb of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Caenorhabditis elegans.
Eukaryota; Metazoa; Nemato
Rhabditidae; Peloderinae;
NCBI_TaxID=6239;
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                                                                                                             01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation updat
GLYCEBOL KINASE-LIKE PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                           PFAM; PF00106; adh_short; 1. PFAM; PF00678; adh_short_C2; 1. PRINTS; PR00080; SDRFAMILY.
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                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalia; Eutheria; R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature 368:32-38(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         elegans.
           SEQUENCE FROM N.A.
STRAIN=129SV; TISS
                                                                                                     GK-RS1 OR GKRS1
                                                                                                                                                                  Q9WU64;
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                                                 NCBI_TaxID=10090;
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 Decker W.K.,
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           TISSUE=TESTES;
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rinae; Caenorhabditis.
                                                               Chordata;
Rodentia;
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75.08;
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A.H.H.
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; B1518A53D4ABE025 CRC64;
                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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  Craigen
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RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibeywam C.,
RA Liu X., Mattel B., McIntosh T.C., McLeod M.P., McPherson D., Lai Z., Liang Y., Lin X.,
RA Liu X., Mattel B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Spier E., Spradling A.C., Stappleton M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stappleton M., Skupski M.P., Smith T.,
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Eukaryota; Metazoa; Arthropoda; Tracheata;
Pterygota; Neoptera; Endopterygota; Diptera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-20196006; PubMed-10731132; Adams M.D., Celniker S.E., Holt R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-BERKELEY
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llidae; Drosophila.
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a; Brachycera; Musc
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EMBL; AE003841; AAF59247.1; -.
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011308;
01-JUL-1997
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                                                                               SEQUENCE FROM N.A.

MORATILIA M., AGROMAYOF M., Nunez A., Funes J.M., Varas A.J.,

MORATILIA M., AGROMAYOF M., Nunez A., Funes J.M., Varas A.J.,

LOPEZ-ESTEDATARZ J.L., COLLAGO M., PAVON M., Martin-Gallardo A.;

Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.

EMBL, U86804; AAB57938.1; -.

INTERPRO; IPRO02221; -.

PROSITE; PS00317; 4_DISULFIDE_CORE; UNKNOWN_1.

SEQUENCE 640 AA; 68996 MW; 23752F0B08B49BEA CRC64;
                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE=97093414; PubMed=8938976;
Martin-Gallardo A., Moratilla M.,
                                                                                                                                                                                                                                                                                                                                                                         Viruses; dsDNA viruses, Molluscipoxvirus.
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Molluscum contagiosum virus
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01-MAY-2000 (TrEMBLrel.
SIMILAR TO VARIOLA C15L
                                                                                                                                                                                    Virus Genes 0:0-0(0).
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PFAM; PF00171; alded
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Varas A.J., Collado M., Valencia
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ALDEHYDE_DEHYDR_GLU; 1.
, 62697 MW; F68ACB3F904B0D7A CRC64;
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85.7%;
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85.7%;
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AND
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                         ; Score 35; DB; Pred. No. 67; 0; Mismatches
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RNA stage;
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Last annotation updat
VACCINIA F11L.
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Pred. No. 59;
0; Mismatches
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Martin-Gallardo
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Lopez-Estebaranz J.L.,
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67;
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151 GACVQDG

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Search completed: June 13, 2001, 14:20:36 Job time: 736 sec
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Best Local Similarity 85.7
Matches 6; Conservative
                                                                                                                                                                                                         2 GLCVQDG 8
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151 GACVQDG 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Senkevich T.G., Bugert J.J., Sisler J.R., Koonin E.V., Darai G.,
Moss B.;
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; U60315; AAC55146-1; -
INTERPRO, IPRO02221; -
INTERPRO, IPRO02221; -
PROSITE; PS00317; 4_DISULFIDE_CORE; UNKNOWN_1.
SEQUENCE 680 AA; 72398 MW; 12CB3BD9E61AA72B CRC64;
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Q98187;
Q1-FEB-1997 (TrEMBLrel. 02, Created)
Q1-FEB-1997 (TrEMBLrel. 02, Last sequence update)
Q1-FEB-1997 (TrEMBLrel. 13, Last annotation update)
MC018L.
MC018L.
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MEDLINE-96325459; PubMed-8670425;
Senkevich T.G., Bugert J.J., Sisler J.R., Koonin E.V., Darai G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Molluscum contagiosum virus subtype 1 (MCVI).
Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
Molluscipoxvirus.
MCBI_TaxID-10280;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Genome sequence of a human tumorigenic poxvirus: prediction of specific host response-evasion genes."; Science 273:813-816(1996).
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                                                                                                                                                                                                                                                                                                                                                                            76.1%; Score 35; DB 14; Length 680; 85.7%; Pred. No. 71; ative 0; Mismatches 1; Indels
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Scoring table:
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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seq length:
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7733.99.99.99
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1.296 Million cell updates/sec
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/cgn2_6/ptodata/2/18a/5B_COMB.pep:*
/cgn2_6/ptodata/2/18a/6A_COMB.pep:*
/cgn2_6/ptodata/2/18a/6B_COMB.pep:*
/cgn2_6/ptodata/2/18a/FCTUS_COMB.pep:*
/cgn2_6/ptodata/2/18a/Packfiles1.pep:*
                                          DB
                     US-08-480-150A-14
US-08-149-223A-14
US-08-189-23A-14
US-08-808-550-35
US-08-468-46-2
US-08-453-472-5
US-08-484-993B-43
US-08-845-903-5
US-08-862-903-5
US-08-862-913-43
US-08-484-158B-43
US-08-484-596A-43
US-08-484-596A-43
US-08-484-596A-43
US-08-484-596A-43
US-08-484-731-43
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US-08-484-1598-10

US-08-484-596A-10

US-08-480-150A-10

US-08-458-731-10

US-08-458-731-10

US-08-484-9938-14

US-08-484-158B-14

US-08-484-1596A-14
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8, Appli 10, Appl 210, App
                       US-08-624-601-8
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US-08-624-601-8
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•	40	Sequence 2, Appli		Sequence 17, Appl	Ņ	14	14,	14	7	۲,		Seguence 20, Appl				Sequence 26, Appl	Sequence 2, Appli

ALIGNMENTS

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PILING DATE: 08-APR-996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: SCHNELLER Dr., John W.
REGISTRATION UNBER: 26,031
REFERENCE/DOCKET NUMBER: BAMC
TELECOMMUNICATION: TELEPHONE: (202)414-4000
TELEPHONE: (202)414-4040
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 400 amino acids
TYPE: moin colds
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ORGANISM: VIDTIO chol
STRAIN: El TOT 7946
IMMEDIATE SOURCE:
CLONE: ZOT
                                                                                            MOLECULE TYPE: pe
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/624,601
FILING DATE: 08-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Kaper Dr., James B.
APPLICANT: Levine Dr., Myron M.
TITLE OF INVENTION: Vibrio cholerae O1 (CVD111) and non-O1
TITLE OF INVENTION: (CVD112 and CVD112RW) serogroup vaccine strains, methods
TITLE OF INVENTION: of making same and products thereof
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                    TYPE: amino acid STRANDEDNESS: TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Spencer & Frank
STREET: 1100 New York Ave. N.W.
CITY: Washington
STATE: D.C.
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                                                                         Vibrio cholerae
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US-08-484-158B-10
Sequence 10, Application US/08484158B
Patent No. 5976545
GENERAL INFORMATION:
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                                                         RESULT
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Best Local
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Best Local Similarity
Matches 7; Conserv
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                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 07/9;
FILING DATE: 09-NOV-1992
ATTORNEY_AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Jos
                                                                                                                                                                                                                                                                                                                     TELEFAX: 311,
TELEFAX: 25-3856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FITLE OF INVENTION:
                                                                                                   366 GDLCTQDG 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291 GRLCVQDG 298
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TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/01 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Chicago
                                                                                                                                                                                                                                                                                       LENGTH:
                                                                                                                                1 GGLCVQDG 8
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                                                                                                                                                           Similarity 6; Conserv
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                                                                                                                                                                                                                                                                                      715 amino acids
                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                              protein
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                                                                                                                                                                       76.1%;
75.0%;
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87.5%;
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Pred. No. 1.3e
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Pred. No.
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US-08-484-596A-10
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                                                                                                                                                                                                      Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
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                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
STREET: CLICAGO
CITY: Chicago
Illinois
                                                                                                                              APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 715 amino acid
                                                                                NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/012,990

FILING DATE: 29-JAN-93

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/973,341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Rel-
CURRENT APPLICATION DATA:
                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 08,
FILING DATE: 09-NOV-93
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Pharmaceutical Compositions TITLE OF INVENTION: Immunocontraception NUMBER OF SEQUENCES: 61
                                                                                                                                                                                                                                                                                                           366 GDLCTQDG 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 25-3856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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CITY: Chicago
STATE: Illinoi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/
FILING DATE: 07-JUNE-95
CLASSIFICATION: 514
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OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
mes 6; Conser
                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                          1 GGLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1: 715 amino acids amino acid
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7: United
                                                E: Marshall, O'Toole, Gerstein, Murray & 6300 Sears Tower, 233 South Wacker Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Harris Ph.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hsu, Kuang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Marshall, O'Toole, Gerstein, Murray &
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                                                                                                                  Materials and Methods for Immunocontraception
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75.0%;
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Pred. No. 1.3e+02;
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                                                                Borun
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy

Floppy disk

COUNTRY:

TRY: United States of America 60606-6402

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                                                                               ZIP: 60800-0-0-COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PAtentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

CONTRACT CATTON NUMBER: US/08/480,150A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/149
FILING DATE: 11-NOV-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973
APPLICATION OF NOV-1992
ATTORNEY/AGENT INFORMATION:
              CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/149,223
FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole,
STREET: 6300 Sears Tower, 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 715 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELLEFAX: 314/
TELEFAX: 25-3856
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 31:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 6; Conserv
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                                                                                                                                                                                                                                                                                   Chicago
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75.0%;
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08/012,990
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Pred. No.
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South Wacker Drive
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Patent No.
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Best Local
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                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                          FILING DATE: 09-NOV-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                         REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                   FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS LENGTH: 715 amino acid
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APPLICATION NUMBER: 07/9
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: HSU, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
                 TELEFAX: 25-3856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
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                            TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release "."
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                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Chicago
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REGISTRATION NUMBER: (
                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
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                                                                                                                                                             APPLICATION NUMBER:
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TELEFAX: 312/474-0448
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75.0%;
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Pred. No.
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; MOLECULE TYPE: protein US-08-458-731-10
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Best Local Similarity /3...
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Patent No. 6027727
GENERAL INFORMATION:
                                                          Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                             TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MAINUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/0
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/9
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                     MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 09
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGLCVQDG 8
366 GDLCTQDG 373
                                                                                                                                                             LENGTH: 715 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                         TELEPHONE: 312/474-06
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                  NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/01
FILING DATE: 09-NOV-1993
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                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
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                            1 GGLCVQDG 8
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6300 Sears Tower, 233
                                                         Conservative
                                                                                                                                                     protein

    Joseph S.
    Materials and Methods for Immunocontraception

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75.0%;
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Pred. No.
                                                              0
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                                                               Mismatches
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South Wacker Drive
                                                                             1.3e+02;
                                                                                            DB 3;
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RESULT 8
US-08-484-993B-14
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Best Local Similarity
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                                                                                                                                                                 Sequence 14, Application patent No. 5976545
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Materials and Methods for Immunocontraception NUMBER OF SEQUENCES: 59
                                                                                                               APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                              NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                      368 GDLCTQDG 375
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TELEPHONE: 312/474-0448
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                                                                                                                                                                                                                                                                                                                   1 GGLCVQDG 8
                 ADDRESSEE: Borun
                                  ADDRESSEE:
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TRY: United States of America
60606-6402
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6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                    Application US/08484158B
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6300 Sears Tower, 233 South Wacker Drive
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                                 Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
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                                                                                   Immunocontraception
                                                                                                    Pharmaceutical Compositions for
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Pred. No. 1.3e+02;
''' matches 2;
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COUNTRY:

United States of America

Chicago : Illinois RY: United 60606-6402

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INFORMATION FOR SEQ ID NO:
                                      ZIP: bUDDUCE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
        OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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APPLICATION NUMBER: 08/149, 223
FILING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS-DOS
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                     APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                        TITLE OF INVENTION:
                                                                                                                                                      STREET: 6300 S
CITY: Chicago
STATE: Illinoi
                                                                                                                                                                                                                                                                                                                                                                                                                                              368 GDLCTQDG 375
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REGISTRATION NUMBER: 36.
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 0'CLASSIFICATION:
                                                                                                                             COUNTRY:
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No. 5981228
                                                                                                                    RY: Illinois
RY: United States of America
60606-6402
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00 Sears Tower, 233
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75.0%;
US/08/484,596A
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Pred. No. 1.3e
0; Mismatches
                                                                                                                                                                                     South Wacker Drive
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 716 amino acids
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Best Local Similarity
Matches 6; Conserv
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Patent No. 5
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                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 09-NOV-1S
APPLICATION NUMBER: 08
FILING DATE: 29-JAN-1S
                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/9
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
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TELEPHONE: 312/474-6653
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                             NAME: Clough, David W. REGISTRATION NUMBER: 36 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                              APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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REGISTRATION NUMBER:
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Podolski, :
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75.0%;
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                                                                                                                07/973,341
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ower, 233 South Wacker Drive
                                              36,107
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Pred. No. 1.3e+02;
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312/474-0448

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Query Match
Best Local Similarity
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                                                                                        ; MOLECULE TYPE: protein US-08-458-731-14
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Best Local
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 716 amino acids
                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                           REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 09-NOV-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 07/9: FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                   TELEFAX: 51.,
TELEFAX: 25-3856
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STATE: Illinois
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                                                                                                                                     TYPE: amino acid
                                                                                                                        TOPOLOGY:
                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                            NAME: Clough, David W. REGISTRATION NUMBER:
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Podolski, J
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                Conservative
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75.0%;

    Joseph S.
    Materials and Methods for Immunocontraception

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                           Score 35; DB 3;
Pred. No. 1.3e+02;
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Pred. No. 1.3e+02;
              Mismatches
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                                         Length 716
                Indels
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Best Local Similarity
Thehes 6; Conserv
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US-08-149-223A-14
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                                                                                                                                   US-08-808-550-35
                                                                                                                                                   RESULT
                                                                                                Sequence 35, Application US/08808550 Patent No. 5871992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/08149223A
                                                                                  GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/012
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973
APPLICATION OF NOV-1992
ATTORNEY/AGENT INFORMATION:
               APPLICANT: Teebor, G
APPLICANT: Hilbert,
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Hsu, Kuang APPLICANT: Podolski,
                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                     368 GDLCTQDG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 09
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: United States of America ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
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                                                                                                                                                                                                                                     1 GGLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
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                                               Hilbert,
                                                               Teebor, George W
                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Harris Ph.D., Jeffrey D
                                                                                                                                                                                                                                                                                                                                                                                        linear
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00 Sears Tower, 233
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               MAMMALÎAN ENDONUCLEASE III AND DIAGNOSTIC AND THERAPEUTIC USES THEREOF
                                                                                                                                                                                                                                                                                      76.1%;
75.0%;
                                                  Timothy P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Release #1.0,
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Pred. No. 1
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South Wacker Drive
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1.3e+02;
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CORRESPONDENCE ADDRESS:

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                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/08468846 Patent No. 6074839 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 73.1
Best Local Similarity 71.7
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
TELEFAX: 201-343-1684
INFORMATION FOR SEO ID NO: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 213 amino acids
TYPE: amino acids
GTPANEDINESC. 2121
     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYPOTHETICAL: N
FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                  APPLICANT: Adams, Mark
TITLE OF INVENTION: TRANSFORMING GROWTH FACTOR ALPHA HI
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                          ADDRESSEE: STUART & STREET: 6 Becker Fa CITY: Roseland STATE: New Jersey COUNTRY: USA ZIP: 07068
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REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 1049-1-001 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/808,550 FILING DATE: 26-FEB-1997 CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Hackensack
STATE: New Jersey
                                                                                                                                                                                                                                     ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGLCVQD 7
                                                                                                                                                                                          E: CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI,
E: STUART & OLSTEIN
6 Becker Farm Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: David A. Jackson, Esq. 411 Hackensack Ave, Continental Plaza, 4th
                                                                                                                                                                                                                                                                                                                      Fuldner, Rebecca
Fei-Wei, Ying
                                                                                                                                                                                                                                                                                                                                                             Meissner, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s: protein
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US/08/468,846
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Pred. No.
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Best Local Similarity
~~+~hes 5; Conserva
Search completed: June 13, 2001, 14:16:37 Job time: 498 sec
                                                                                                                                                                       ; MOLECULE TYPE: US-08-468-846-2
                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acid
                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Ferraro, Gregory 36.1
                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700
                                                          ||:|:||
| 85 GGVCKEDG 92
                                                                                                                                                                                                       TYPE: amino acid
                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-465
                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                   1 GGLCVQDG 8
                                                                                                                                                                                                                     380 amino acids
                                                                                                                                                                                                                                                          201-994-1744
                                                                                                           Conservative
                                                                                                                                                                                protein
                                                                                                                      73.9%;
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                                                                                                                     Score 34;
Pred. No.
                                                                                                                                 Length 380;
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Maximum Match 100%
Listing first 45 s
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Perfect score:
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Maximum DB seq
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                                                                                                                                                                                                                                                                                          Score
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length: 2000000000
Match
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1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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Gapop 10.0 , Gapext 0.5
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/SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT: *
/SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT: *
/SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT: *
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/SIDS6/gcgdata/geneseq/geneseqp/AA1996.DAT: *
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                                                                                                                                                                                                                                             Y79123
                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                       Peptide antagnonis
Peptide antagonist
Human foetal intes
Human foetal intes
                                                                                                                                                                                                                                                                                        Description
                    Protein encoded by Peptide antagonist Complex scuPA/suPA
                                                                                            Murine BrE-3 immun
Murine BrE-3 immun
                                                                                                                                                                                                                                      Peptide antagonist
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			ש			7 R87049					5 R82833																	W80816			5 R54811		W	
-	Human 5' EST relat	HSV-neutralising a		eceptor	Human heavy chain	group	Anti-RSV F glycopr	Human adult heart	heai	avy c	rminal of C1	₹	fı						Peptide antagonist	_	Anti-hCG anti-RR6	anti-	body 15D3	hain	ant	in encoded	anti-	-	Human immunoglobul	Anti-hIL12 antibod	SpA-reactive VH re	Human colon cancer	EGF receptor chime	Human immunoglobul

ALIGNMENTS

Peptide antagonist of zonulin. 05-JUN-2000 (first entry) Y79123;

Y79123 standard; Peptide;

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Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral;
                  WPI; 2000-205565/18
                                                                         03-AUG-1998;
                                                                                                                                                     Synthetic
                                                                                                                                                                       hypotensive; immunosuppressive; antipar gastrointestinal inflammation; therapy.
                                                       (UYMA-) UNIV MARYLAND BALTIMORE.
                                                                                             28-JUL-1999;
                                                                                                                17-FEB-2000
                                                                                                                                  WO200007609-A1.
                                                                                                                                                                                          antibacterial;
                                                                                                                                                                                           cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                          98US-0127815.
                                                                                             99WO-US16683
                                                                                                                                                                                 antiparasitic;
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New peptide antagonist of zonulin useful as antiinflammatory agent for

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Query Match
Best Local Similarity
"~+~hes 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                celiac disease; Sjogren's syndrome; systemic lupus erythematosus; auto-immune thyroiditis; idiopathic thrombocytopenic purpura;
23-MAR-2000
                                                                                WO200015252-A1
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                                                                                                                                                                                                                                                                                                                                                                      myasthenia
                                                                                                                                                                                                                                                                                                                                                                                                    pernicious anemia; vasculitis; autoimmune coagulopathy; polymyositis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organ transplantation; inflammatory disease; allergic disease; rheumattid arthritis; insulin dependent diabetes mellitus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APC; lymphocyte proliferation; antigen; auto-immune disorder; immune-related disorder; immune system rejection; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide antagnonist FZI/O of zonula occludens toxin (zot) polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUL-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                      Karposi's
                                                                                                                                                                                                                                                                                                                        myasthenia gravis; polyneuritis; pemphigus; rheumatic carditis;
Dermatomyositis; scleroderma; asthma; psoriasis; eczematous der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y84661 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                              hemolytic anemia; Grave's disease; Addison disease; autoimmune orchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; Zot; zonula occludens toxin; zonulin; antigen presenting cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GGLLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ggllvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   systemic lupus
                                                                                                                                                                                                                                                                                      sarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                                                                                                                      inflammatory bowel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 42; DB 21;
Pred. No. 3.2e+05;
; Mismatches 0;
                                                                                                                                                                                                                                                                                      disease;
                                                                                                                                                                                                                                                                              proliferative disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                        dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
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Best Local Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The method can be used to down-regulate APC-mediated lymphocyte proliferation in mammalian hosts suffering from auto-immune or immune-related disorders, immune system rejection subsequent to tissue or organ transplantation, or inflammatory or allergic diseases. The autoimmune or immune related disorders include multiple sclerosis, rheumatoid arthritis, insulin dependent diabetes mellitus, celiac disease, Sjogren's syndrome, systemic lupus erythematosus, auto-immune thyroiditis, idiopathic thrombocytopenic purpura, hemolytic anemia, Grave's disease, Addison disease, autoimmune orchitis, pernicious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            suppressing antigen presenting cell (APC) mediated 2, mediated antigen proliferation in a mammalian host pre-exposed to a particular antigen. Proliferation in a mammalian host pre-exposed to a particular antigen. The method comprises administering to the host an effective amount of a Zot-related immunoregulator selected from Zot (zonula occludens toxin) of zonulin, the amount effective to down-regulate the activity of the APC.
                                                   neuroprotective; dermatological; antiulcer; antiviral;
antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       anemia, vasculitis, autoimmune coagulopathies, myasthenia gravis, polyneuritis, pemphigus, rheumatic carditis, polymyositis, pemphigus, rheumatic carditis, polymyositis, and scleroderma. The inflammatory or allergic disease permatomyositis, and scleroderma. The inflammatory or allergic disease
                                                                                                           Zonulin; antagonist; zonula occludens toxin receptor; human; blood-brain barrier; antiinflammatory; cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Karposi's sarcoma, multiple sclerosis, inflammatory bowel disease, proliferative disorders of smooth muscle cells, and inflammatory conditions associated with mycotic, viral, parasitic, or bacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents a peptide antagonist of zonula toxin (zot) polypeptide. The specification describes a method of suppressing antigen presenting cell (APC)-mediated lymphocyte
                                                                                                                                                                                                                  05-JUN-2000
                                                                                                                                                                                                                                                          Y79119;
                                                                                                                                                                                                                                                                                               Y79119 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or disorder is selected from asthma, psoriasis, eczematous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 7; Page 59; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Suppression of antigen presenting cell mediated lymphocyte proliferation, by administering a Zot-related immunoregulator useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-SEP-1999;
                                                                                                                                                                           Peptide antagonist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for treating immune-related disorders, immune system rejection
subsequent to tissue or organ transplantation -
                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGLLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                              1 ggvlvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sztein MB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               to tissue or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US18842
                                                                                                                                                                           of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.9%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lu R,
                                                                                                                                                                                                                                                                                                 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 39; DB Pred. No. 3.2e 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tanner MK
                                   therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 21;
.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dermatitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   occludens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowers intestance in the state obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TJ). The peptide antagonists are based on a common motif of 20T and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
Zonulin; mammalian tight junction; zonula occludens toxin; zo Vibrio cholerae; vaccine; cholera toxin; polyclonal antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 45;
                                                        Human foetal intestine zonulin N-terminal peptide
                                                                                                                                                                     W94489 standard; peptide; 20 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            It is one of 25 peptide antagonists (see Y79105-29) of the that bind to a zonula occludens toxin (ZOT) receptor, yet d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This present sequence is that of a peptide antagonist of zonulin, corresponding to residues 8-15 of human foetal intestinal zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYMA-) UNIV MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .g. systemic lupus
                                                                                                                                                                                                                                                                                                      | GGLLVQPG 8
||:||||
| GGLLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                      ξ
                                                                                             (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             erythematosus
                                                                                                                                                                                                                                                                                                                                                        92.9%;
                                                                                                                                                                                                                                                                                                                                     Score 39; DB 21; Le
Pred. No. 3.2e+05;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or food allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                            Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            yet do not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     junctions of intestinal and masal mucosa and across tight junctions of the blood brain barrier. Zonulin can be used with agents such as drugs, e.g. lidocaine, adenosine, dobutamine, dopamine, epinephrine, naibuphine, norepinephrine, phentolamine, doxapram, alfentanil, dezocin, naibuphine, buprenorphine, naloxone, ketorolac, midazolam, propofol, metacurine, mivacurium, succinylcholine, cytarabine, mitomycin doxorubicin, vincristine, vinblastine, methicillin, mezlocillin, piperacillin, cetenxitin, cefenicid, cefmetazole and aztreonam, a hormone e.g. testosterone, nandrolene, menotropins, insulin, urofolltropin, interferon-apha, interferon-gamma, interleukin-little, transcription, interferon-beta, interferon-gamma, interleukin-little, transcription, interferon-gamma, interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of agents across intestinal and nasal mucosa and blood brain barrier
                                                                        05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          opening mammalian tight junctions. Zonulin proteins function as physiological modulators of mammalian tight junctions. They can for enhancing the absorption of therapeutic agents across tight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IL-1), IL-2, IL-4, IL-8, polyvalent IgG, specific IgG, IgA, or IgM. The proteins can also be used for the production of antibodies which can be used to assay for zonulin in body tissue or fluids, or in affinity purification of zonulin. The present sequence represents an N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         occludens toxin (ZOT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYMA-) UNIV MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  intestinal mucosa; nasal mucosa; blood brain barrier.
                                                                                                                                                                         Y79133 standard; Peptide; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recognised by both anti-tau polyclonal antibody and by anti-zonula occludens toxin (20T) polyclonal antibody, and is capable of reversibly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide of zonulin.
                                                                                                                                                                                                                                                                                                              œ
                                                                                                                                                                                                                                                                                                                                                           1 GGLLVQPG 8
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 45; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nt invention describes pure zonulin which has an weight of 47 kD, as determined by SDS-PAGE, whi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                        (first entry)
                                                                                                                                                                                                                                                                                                              15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0859931.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                       92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    39; D
                                                                                                                                                                                                                                                                                                                                                                                                                          DB .
                                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 20;
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Human foetal intestine zonulin N-terminal sequence

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is that of the N-terminal region of foetal human intestinal zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Yibrio cholerae zonula occludens toxin (ZOT) to identify a common motif thought to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for treatment of conditions associated with breakdown of the blood-brain
                                                                                                    Immunoglobulin variable domain; primer; polymerase chain reaction; chimeric antibody; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
           15-NOV-1993;
                                   26-MAY-1994
                                                                                 Mus musculus
                                                                                                                                           Murine
                                                                                                                                                                     24-JAN-1995
                                                                                                                                                                                             R52775;
                                                                                                                                                                                                                  R52775 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zonulin; antagonist; zonula occludens toxin receptor;
human; blood-brain barrier; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                           1 GGLLVQPG 8
||:||||
8 ggvlvqpg 15
                                                                                                                                                                                                                                          6
                                                                                                                                        BrE-3 immunoglobulin heavy chain variable domain N-terminus
                                                                                                                                                                                                                                                                                                                         Similarity 87. 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fig 6; 69pp;
                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MARYLAND BALTIMORE
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           93WO-US11316
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "unidentified residue"
                                                                                                                                                                                                                                                                                                                                      92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English.
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                                                                                                                                                                                                                                                                                                                        Score 39; DB 21;
Pred. No. 0.66;
1; Mismatches
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RESULT
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Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                         16-NOV-1992;
30-SEP-1993;
08-OCT-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62740-Q62744) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to V-terminal sequences which had been determined directly (i.e. R52774 and R52775). The general agreement between the predicted and the determined amino acid sequences that the cloned cDNAs encode BrE-3
                                                                        New analogue peptide(s) comprising used to develop prods. for use in therapy and prevention of neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-NOV-1992;
13-NOV-1992;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunoglobulin variable domain;
chimeric antibody; human milk fe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chimeric human-murine polypeptide(s) specific for human mammary fat globule antigen - for imaging, diagnosing and treating neoplasia, with less undesirable immunogenic response
                                                                                                                                                                                             WPI; 1994-183510/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAY-1994.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murine BrE-3 immunoglobulin heavy chain variable domain N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R52793 standard; Protein; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                  (CANC-) CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 11; Page 32; 54pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1994-183509/22.
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8 ggvlvqpg 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                      92US-0977696.
93US-0129930.
93US-0134346.
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92US-0977707.
93US-0128015.
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                                                                                                                                                                                                                                                                                                                                                                                                                     93WO-US11445
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          iable domain; primer; polymerase chain reaction;
human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.9%;
                                                                                                      ) comprising antibody variable regions for use in the detection, diagnosis,
                                                                                                                                                                                                                                                  CONTRA
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Pred. No.
                                                                                                                                                                                                                                                  COSTA.
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0.83;
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Example 12; Page 53; 54pp; English

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Query Match
Best Local Similarity
"""tches 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       primers JO2, JO3, JO4, JO14 and VH1BACK (Q62765-Q62769) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. R52792 and R52793). The general agreement between the predicted and the
B07556-78 represent proteins encoded by open reading frames (UKFS) 8 to 30 of the BLM (Bleomycin) gene cluster. The proteins encoded by the gene cluster are useful for producing peptides and/or polyketide metabolites, especially bleomycin or bleomycin analogues. They are also useful for chemically modifying biological molecules to produce also useful for chemically modifying amino acids and fatty
                                                                                                                        New bleomycin gene cluster components useful polyketide metabolites, especially bleomycin, chemically modifying biological molecules -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Streptomyces verticillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLM gene cluster; bleomycin gene cluster; polyketide metabolite; bleomycin; bleomycin analogue; holo-carrier protein; thiazolidine;
                                                                                                                                                                                 N-PSDB;
                                                                                                                                                                                                                                                                                       06-JAN-1999;
05-FEB-1999;
                                                                                                                                                                                                                                                                                                                             06-JAN-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B07577;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              determined amino acid sequences that the cloned cDNAs encode BrE-3.
                                                                                               Disclosure; Page 97-137; 162pp;
                                                                                                                                                                                                                                                (REGC
                                                                                                                                                                                                                                                                                                                                                                                   WO200040704-A1
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|ggvlvqpg 15
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99US-0118848.
2000US-0477962.
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                                                                                                                                                                                                                       Sanchez
                                                                                                                                                                                                                                                                                                                                                                                                           /note= "encoded by GTG"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the bleomycin (BLM)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         microbial metabolite;
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Pred. No.
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                                                                                               English.
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                                                                                                                                                                                                                       Edwards
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                                                                                                                                                     for
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                                                                                                                                       for peptide and/or production and for
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Y79121
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This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                        New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                            Claim 1; Page 46; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  plood-brain barrier; antiinflammatory; cerebroprotective;
neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zonulin; antagonist; zonula occludens toxin receptor;
blood-brain barrier; antiinflammatory; cerebroprotect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide antagonist of
                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYMA-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38;
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27;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 498;
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                        enteropathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      catalytic
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RESULT
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Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to milk.
This represents a human immunoglobulin G (IgG) derived peptide sequence that has a stimulating effect on the fibrinolytic activity of the scuPA/suPAR complex of the invention. This sequence has similarity to the human IG heavy chain, IG V-III region (HV3T). The invention provides a thrombolytic therapeutic composition for the treatment and prevention of
                                                                                                                                                          New compositions with thrombolytic activity for, e.g. treatment of thromboembolism - comprise complex of single chain urokinase type plasminogen activator, scuPA, and soluble urokinase plasminogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Thrombolytic activity; soluble urokinase plasminogen activator receptor; single chain urokinase type plasminogen activator; thromboembolism; scupA; supAR; IgG; regulator; fibrinolytic activity; fibrin clot; myocardial infraction; cerebro-vascular event; pulmonary embolism;
                                                                                                           Example 5; Page 24; 46pp; English.
                                                                                                                                                                                                                                         WPI; 1998-348262/30.
                                                                                                                                                                                                                                                                                                               (HADA-) HADASIT MEDICAL RES SERVICES & DEV
                                                                                                                                                                                                                                                                                                                                                     09-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                       09-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1998.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           deep vein thrombosis; immunoglobulin; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Complex scuPA/suPAR fibrinolytic activity regulating peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W68167 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGLLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||| ||||
| gglcvqpg
                                                                                                                                               receptor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ΑA;
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                                                                                                                                                                                                                                                                                                                                                     96US-0032676
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "unidentified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 37; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APC; lymphocyte proliferation; antigen; auto-immune disorder; immune-related disorder; immune system rejection; multiple sclerosis; organ transplantation; inflammatory disease; allergic disease; rheumatoid arthritis; insulin dependent diabetes mellitus; celiac disease; Sjogren's syndrome; systemic lupus erythematosus; auto-immune thyroiditis; idiopathic thrombocytopenic purpura; hemolytic anemia; Grave's disease; Addison disease; autoimmune orchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a thromboembolic disorder associated with the formation of fibrin clots. The composition comprises, as the active ingredient, a complex of a single chain urokinase type plasminogen activator (scuPA) and a soluble urokinase plasminogen activator receptor (suPAR). The complex (scuPA/suPAR) has thrombolytic activity under physiological conditions and in the presence of IgG, or of at least 1 IgG-derived peptide, and induces fibrinolysis of fibrin clots. The compositions and complex are useful for the treatment or prevention of thromboembolic disorders associated with the formation of fibrin clots, especially myocardial infractions, cerebro-vascular events, pulmonary embolism and deep vein thrombosis.
                                           Suppression of antigen presenting cell mediated lymphocyte proliferation, by administering a Zot-related immunoregulator of treating immune-related disorders, immune system rejection subsequent to tissue or organ transplantation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; Zot; zonula occludens tapped APC; lymphocyte proliferation;
                                                                                                                           WPI; 2000-271257/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pernicious anemia; vasculitis; autoimmune coagulopathy; polymyo myasthenia gravis; polyneuritis; pemphigus; rheumatic carditis; bermatomyositis; scleroderma; asthma; psoriasis; eczematous der
                                                                                                                                                           Fasano A,
                                                                                                                                                                                                                                                           09-SEP-1999;
                                                                                                                                                                                                                                                                                           23-MAR-2000
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                                                                                                                                                                                           (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                             WO200015252-A1
                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y84660 standard; peptide; 20
                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ggxlvqpg 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zot; zonula occludens toxin; zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          sarcoma;
                                                                                                                                                         Sztein MB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                           98US-0100266
                                                                                                                                                                                                                                                           99WO-US18842
                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                           /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of a human zonulin protein of 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88.1%;
                                                                                                                                                                                                                                                                                                                                                          "any amino acid"
                                                                                                                                                       Lu R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37; DB Pred. No. 1.4; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
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                                                                                                                                                         Tanner
                                                                                                                                                                                                                                                                                                                                                                                                                                                       sthma; psoriasis; eczematous bowel disease; proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ulin; antigen presenting cell; auto-immune disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19;
                                                                          immunoregulator useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polymyositis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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Disclosure; Page 26;

95pp; English.

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CC method can be used to down regulate APC-mediated lymphocyte proliferation con in mammalian hosts suffering from auto-immune or immune-related consorders, immune system rejection subsequent to tissue or organ contraining the contraining
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
Protein sequences (R66295-51) are novel human
                                                                                                                                                            DNA fragment comprising human immunoglobulin Vh production of human immunoglobulin in mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primer; PCR; amplify; human; immunoglobulin; variable; heavy chain;
cosmid; placenta; vector; pJB81; E.coli; mammalian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunoregulator selected from Zot (zonula occludens toxin) or zonulin, the amount effective to down-regulate the activity of the APC. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antigen presenting cell (APC)-mediated lymphocyte proliferation in a mammalian host pre-exposed to a particular antigen. The method comprises administering to the host an effective amount of a Zot-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents the N-terminal of a human zonulin polypeptide. The specification describes a method of suppressing antigen presenting cell (APC)-mediated lymphocyte proliferation in
                                                                                  Claim 31; Page 59-60; 130pp; Japanese.
                                                                                                                                                                                                                                                                                               WPI; 1995-006791/01.
N-PSDB; Q78960.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-NOV-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9426895-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunoglobulin variable heavy chain #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R66314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R66314 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                         Honjo T, . Matsuda F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NISB ) JAPAN TOBACCO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93WO-JP00603
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Pred. No. 1.5;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ξ
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immunoglobulin heavy chain
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                                                                                                                                                                                                        genes
                                                                                                                                                                     hosts
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RESULT
W00240
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Best Local Similarity
Thes 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequences encoded by novel isolated genes. The genes (Q78939-79002) were isolated and cloned from a series of cosmid constructs: Y202; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR amplification using primers Q78917-38. The genes are subdivided into 5 families of Vh genes. The fragments cover a region of 800 kb. The DNA fragments were isolated from high molecular weight DNA from human placenta. The DNA was partially digested with TaqI restriction enzyme. The fragments were separated by gel elecrophoresis and 35-45 kb fractions were collected. The fragments were ligated with ClaI-digested cosmid vector pJB81. The ligation products were in vitro packed and infected into E.coli 490A. The fragments were then subcloned by colony hybridisation. The Vh genes and immunoglobulin in mammalian hosts.
The amino acid sequence (W00240) of (VH) of the epidermal growth factor
                                     Claim
                                                                                                WPI; 1996-412776/41.
N-PSDB; T33445.
                                                                                                                                                                                                                                             06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                            Murine/human chimeric monoclonal antibody, EGF-R - shows a lower immunogenicity when a
                                                                                                                                  Anastasi AM,
Ferrer Marsal
                                                                                                                                                                                               01-MAR-1995;
                                                                                                                                                                                                                       01-MAR-1996;
                                                                                                                                                                                                                                                                    W09627010-A1
                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                           Mouse-human chimeric antibody; monoclonal antibody; epidermal growth factor receptor; EGF-R; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EGF receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W00240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W00240 standard; Protein; 120 AA
                                                                                                                                                                      (ITUY-) ITAL MIN UNIV RICERCA SCI & TECNOLOGICA.
                                                                                                                                                                                                                                                                                                                                                                                                                 immunotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27 ggalvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGLLVQPG
                                     7;
                                   Page 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                 immunocytokine;
                                                                                                                                 Colnaghi MI,
C, Mele A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34
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                                                                                                                                                                                               95IT-0FI0036
                                                                                                                                                                                                                     96WO-EP00805
                                                                                                                                                                                                                                                                                             /label=
                                                                                                                                                                                                                                                                                                                                            /label-
                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                  /label= CDR2
                                 28pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.1%;
87.5%;
                                                           monoclonal antibody, chMint5 specific immunogenicity when administered to hu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MAb chmint5 VH chain.
                                                                                                                                                                                                                                                                                             CDR3
                                                                                                                                                                                                                                                                                                                                            CDR1
                                    English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0:
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                   tumour; cancer
                                                                                                                                               Santis R,
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the heavy chain variable region receptor (EGF-R)-specific mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 9.5;
                                                                                                                                               Di Massimo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           chMint5;
therapy;
                                                            to humans
                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
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88888888**x**&

human chimeric antibody chMint5 was deduced from a cDNA clone (T33445) obtd. by PCR amplification of murine Mint5 hybridoma DSM ACC2150 cDNA. chMint5 comprises Mint5 VH and VI regions fused to human C-gammal and CK regions. Constructs were expressed in CHO cell transfectants. chMint5 shows lower immunogenicity than

CHO cell transfectants. chmint5 shows lower immunogenicity than Mint5 when administered to humans. It can be used in diagnostic assays or used to produce immunotoxins or immunocytokines useful

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C97991 to C98763 encode the human colon cancer associated proteins, called human colon cancer antigens, given in B53234 to B54006. The human colon cancer antigens can have cytostatic, cardioactive, muscular; neuroprotective, immunomodulatory, gynaecological, gastrointestinal, vulnerary, nephrotropic, antiinfective and antibacterial activities, and can be used in gene therapy. The colon cancer antigen polynucleotides, proteins and antibodies to the proteins are useful for the prevention, treatment and diagnosis of colon disorders, such as colon cancer. The polynucleotides may be used in diagnostics and research, such as for chromosome identification, and as hybridisation probes. The proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            identification; cytostatic; cardioactive; neuroprotective; vulne: immunomodulatory; muscular; gynaecological; gastrointestinal; nephrotropic; antiinfective; antibacterial; gene therapy; wound; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; renal disorder
                                                                                                                                                                                                Claim 11; Page 1770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                               antigens,
                                                                                                                                                                                                                                                                                                 N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                12-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200055351-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                infectious disease;
 also
                                                                                                                                                                                                                                                                                                                 2000-587534/55
                                                                                                                                                                                                                                 cancer associated gene sequences, referred to as colon cancer ens, useful for the treatment, prevention, and diagnosis of coders such as colon cancer -
                                                                                                                                                                                                                               useful for the such as colon
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US05883
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cardiovascular disorder.
 prevent
                                                                                                                                                                                                2104pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 renal disorder;
   disorders,
                                                                                                                                                                                                                                                    of colon
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DЪ Ωy

8

ggtlvqpg 15

1 GGLLVQPG 8

Matches Query Match Best Local

Similarity 7; Conser

Conservative

0

Mismatches

88.1%; 87.5%;

Score 37; Pred. No.

DB 10;

15;

Length 123

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Gaps

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RESULT
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Best Local Similarity
Thes 7; Conserv
  gastrointestinal disorders, wounds, renal disorders, infectious diseases, and cardiovascular disorders. C98764 to C98772 and B5 represent sequences used in the exemplification of the present
                                A B-cell superantigen (sAg) is a fragment of SpA D domain that specifically binds the Fab portion of variable region restricted antibodies. The sAg is used to enhance production of VH, especially VH3, restricted Abs. During attempts to identify sAgs, as sequences (R54784-801) of H chains from Ig reactive with mod-SpA, and as and DNA sequences (R54802-16, 064842-56) of VH regions of SpA binders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   system disorders,
                                                                                                                                            Stimulating prodn. of variable region gene family restricted antibodies - through B-cell super-antigen vaccination
                                                                                                                   Disclosure; Page 103; 130pp; English
                                                                                                                                           antibodies
                                                                                                                                                                           N-PSDB; Q64851.
                                                                                                                                                                                                               Silverman GJ
                                                                                                                                                                                                                                                             30-OCT-1992;
                                                                                                                                                                                                                                                                                                           11-MAY-1994.
                                                                                                                                                                                                                                                                                                                                 W09409818-A
                                                                                                                                                                                                                                                                                                                                                                                                                  SpA domain D;
                                                                                                                                                                                                                                                                                                                                                                                                                                       SpA-reactive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R54811 standard;
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Sequence
                                                                                                                                                                                         WPI; 1994-167127/20
                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                vaccine
                                                                                                                                                                                                                                                                                                                                                                                                      superantigen;
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                                                                                                                                                                                                                                                                                                                                                                                          protein-A;
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                          from combinatorial libraries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                           through B-cell super-antigen
                                                                                                                                                                                                                                                                                                                                                                                         Ig binding region; B-cell superantigen; sAg;
heavy chain variable region; VH3 restricted antibody;
; SpA2-08; combinatorial library; B-lymphocyte;
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  A
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                                                                                                                                                                                                                                                                                                                                                                                                                                       region SpA2-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   muscular disorders, reproductive disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.1%;
87.5%;
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Pred.
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RESULT B53648

14

B53648

standard; Protein; 121 AA

Human colon cancer antigen protein sequence SEQ ID NO:1188.

colon

cancer; colon

cancer antigen;

diagnosis;

vulnerary;

09-MAR-2001 (first entry)

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ggalvqpg

1 GGLLVQPG

8

Matches Query Match Best Local :

Local Similarity nes 7; Conserv

Conservative

88.1%; 87.5%;

Score 37; Pred. No. Mismatches

17;

Length 120;

Indels

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Gaps

0;

Sequence

120 AA;

tumour therapy.

Search completed: June 13, 2001, 14:14:39 Job time: 380 sec

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Title:
Perfect score:
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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ALIGNMENTS	Ig heavy chain v I I I I I I I I I I I I I I I I I I

RESULT 1 D83347 probable aminotransferase PA2394 [imported] - Pseudomonas aeruginosa (strain probable aminotransferase PA2394 [imported] - Pseudomonas aeruginosa (c;Species: Pseudomonas aeruginosa C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000 C;Accession: D83347 C;Accession: D83347 R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hicke adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbi R:Capra, J.D.; Kehoe, J.M. Proc. Natl. Acad. Sci. U.S.A. 71, 845-848, 1974 A;Title: Variable region sequences of five human A;Reference number: A93794; MUID:74142702 A;Accession: A02061 A;Cross-references: GDB:128528; OMIM:147070 A;Map position: 14q32.33-14q32.33 C;Superfamily: immunoglobulin V region; immunoglobulin homology Ig heavy chain V-III region (Zap) - human (tentative sequence) C;Species: Homo sapiens (man) C;Date: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change 31-Mar-2000 C;Accession: A02061 A;Molecule type: DNA A;Residues: 1-427 <STO> A;Cross-references: GB:AE004665; GB:AE004091; NID:g9948426; PIDN:AAG05782.1; GSPDB:GN A;Experimental source: strain PAO1 C;Genetics: F;15-98/Domain: immunoglobulin homology <IMM> C; Comment: This chain was isolated from an IgAl myeloma protein. A; Reference number: A82950; A; Accession: D83347 Nature 406, 959-964, 2000 heterotetramer; immunoglobulin Conservative sequence of Pseudomonas aeruginosa PAO1, 50; MUID:20437337 100.0%; 0 Score 42; DB 2; Pred. No. 0.98; 0; Mismatches <u>ب</u> immunoglobulin heavy chains of 0, Length 427; Indels 0, an P.; Hickey, M.J.; A.; Larbig, K.; L Gaps opportunistic 0 PA01) the V

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A;Cross-references: EMBL:Z18824; NID:g33111; PIDN:CAA79276.1; PID:g939891 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:Z12335; NID:g32889; PIDN:CAA78205.1; PID:g32890 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Accession: S26929

R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.

J. Mol. Biol. 227, 776-798, 1992

A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups of A;Reference number: S26885; MUID:93021117

A;Accession: S26929
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             RESULT
$44111
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                                                                                                                                                                                                                                                                                                                                        A;Reference number: S36256; MUID:93178448
A;Accession: S36282
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Ιg
                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                   R;Griffiths, A.D.; Malmqvist, M.; Marks, J.D.; Bye, J.M.; Embleton, M.J.; McCafferty, JEMBO J. 12, 725-734, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig heavy chain V region (clone alpha-FOG1-H6) - human (fragment)
C;Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-98 < TOM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;22-96/Disulfide bonds:
                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-110 <GRI>
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                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; nucleic acid sequence not shown
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Species: Homo sapiens (man)
Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                              Accession: S36282
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Jul-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local
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heavy
                                                                                                                                               Local Similarity hes 7; Conserv
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                                                                                                  1 GGLLVQPG 8
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chain V-D-J
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                                                                                                                                                                Score 36; DB 2;
Pred. No. 4.1;
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Pred. No. 3
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2.7
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                                                                                                                                                                                  Length 110;
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S61447
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C; Keywords:
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                 Genetics:
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R;Ferrarese, L.; Trainotti, L.; Moretto, P.; Polverino de Laureto, P.; Rascio, N.; Plant Mol. Biol. 29, 735-747, 1995
A;Title: Differential ethylene inducible expression of cellulase in pepper plants. A;Reference number: S61445; MUID:96128016
A;Accession: S61447
                                                                                                         C;Accession: T06350
R;Lashbrook, C.C.; Gonzalez-Bosch, C.; Bennett, A.B.
Plant Cell 6, 1485-1493, 1994
A;Title: Two divergent endo-beta-1,4-glucanase genes A;Reference number: Z15614; MUID:95086382
A;Accession: T06350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cellulase (EC 3.2.1.4) CX3 - pepper (fragment)
C;Species: Capsicum annuum (pepper)
C;Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 08-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
"---hes 6; Conserv
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                                                                                                                                                                                                                                                                                                          RESULT 7
T06350
cellulase (EC 3.2.1.4) Cel2 precursor - tomato
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A; Molecule type: DNA
A; Residues: 1-120 <HAW>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Date: 13-Ja
C; Accession:
                                                                                                                                                                                                                                               C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 08-Dec-2000
                                                                                                                                                                                                                                                                   C; Species: Lycopersicon esculentum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:X83711
C;Superfamily: Arabidopsis membrane-anchored cellulase KOR
C;Keywords: glycosidase; hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: A; Accession: S44111
A; Experimental source: strain Castlemart;
                                           A; Molecule type: mRNA
A; Residues: 1-489 <LAS>
                                                                                                                                                                                                                                                                                        N; Alternate names: endo-1, 4-beta-glucanase
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A; Residues: 1-324 <FER>
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                                                                                       A;Status: preliminary; translated
                         ;Cross-references: EMBL:U13055; NID:g531904; PIDN:AAA69909.1; PID:g531905
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Best Local
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13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 23-Jul-1999
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85.7%;
75.0%;
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Pred. No. 12;
2; Mismatches
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                                                                                         from GB/EMBL/DDBC
                                                                                                                                                                                                                                                                      (tomato)
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. 12;
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Ig heavy chain V region (10-25) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text
C;Accession: F31485
R;Bedzyk, W.D.; Johnson, L.S.; Rlordan, G.S.; Voss Jr.,
J. Biol. Chem. 264, 1565-1569, 1989
A;Title: Comparison of variable region primary structure
A;Reference number: A31485; MUID:89109167
A;Accession: F31485
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A;Pathway: cellulose degradation
C;Superfamily: Arabidopsis membrane-anchored cellulase KOR
C;Keywords: glycosidase; hydrolase; polysaccharide degradation
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-489/Product: cellulase 2 #status predicted <MAT>
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Best Local Similarity
'atches 7; Conserv
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A;Title: Characterization of somatically mutated S107 VH11-encoded A;Reference number: pT0376; MUID:91147903
A;Accession: PT0380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ig heavy chain V region (S107/VH11 group 2-18) - mouse (fragment) C:Species: Mus musculus (house mouse) C:Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 0
RESULT
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Best Local S
Matches 6
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6; Conserv
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87.5%;
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75.0%;
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immunoglobulin
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                                                                                                                               Score 34;
Pred. No.
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Pred. No. 7.2;
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C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change
C;Accession: S33402; S36385
R;Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M.
Eur. J. Immunol. 23, 206-211, 1993
A;Title: Optimization of primers for cloning libraries of mouse
A;Reference number: S33391; MUID:93122092
C;Accession: A27606
R;Currler, S.J; Gallarda, J.L.;
J. Immunol. 140, 1651-1659, 1988
A;Title: Partial molecular genet.
A;Reference number: A27606; MUID
                                                                                               Ig heavy chain V-a region (p26.9p2) - rabbit (fragments) C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 08-Mar-1989 #sequence_revision 30-Jun-1991 #text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ig heavy chain V regions (3-24 and 5-14) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change 30-May-1997
C;Accession: D31485
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Ig heavy
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Reywords: heterotetramer; immunoglobulin
F;1-38/Domain: immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                       C; Keywords: het F; 1-38/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submitted to the EMBL Data Library, April 1993 A; Reference number: S36376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X73019
A;Experimental source: strain B;
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S33402
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C; Keywords: heterotetramer; immunoglobulin
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A;Title: Comparison of variable region primary structures within A;Reference number: A31485; MUID:89109167
A;Accession: D31485
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A; Residues: 1-30 <ANS>
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A; Residues: 1-36 <BED>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type:
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                                                            Gallarda, J.L.; Knight,
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87.5%;
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87.5%;
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  genetic map of the rabbit V-H chromosomal region; MUID:88154464
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Pred. No.
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Pred. No. 3
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submitted to the EMBL Data Library, April 1993
A; Reference number: S36376
A; Reference number: S36381
A; Reference number: S36381
A; Rolecule type: mRNA
A; Residues: 1-59 <ANS>
A; Cross-references: EMBL:X73012; NID:g295879; PIDN:CAA51498.1; PID:g939941
A; Cross-references: EMBL:X73012; NID:g295879; PIDN:CAA51498.1; PID:g939941
A; Cross-references: EMBL:X73012; NID:g295879; PIDN:CAA51498.1; PID:g939941
A; Cross-reference number: S3314
A; Title: Optimization of primers for cloning libraries of mouse immunoglobulin capacity and contact type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S33396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S33396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S33396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S33396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-43 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-44 < KETP>
A; Accession: S3396
A; Molecule type: mRNA
A; Residues: 3-44 < KETP>
A; Accession: S3396
A; Molecule type: MRNA
A; Residues: 3-44 < KETP>
A; Accession: S3396
A; Molecule type: MRNA
A; Molecule type: MRNA
A; Molecule type: M
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A; Residues: 1-59 < CUR>
A; Residues: 1-59 < CUR>
A; Cross-references: GB: M19706
A; Note: the authors translated the codon TCC for residue 28 as Asp C; Genetics:
A; Introns: 30/3
C; Superfamily: immunoglobulin V region; immunoglobulin homology C; Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                              Ig heavy chain V region - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C:Accession: S36382; S33397
R:Anseil, K.H.
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A;Experimental source: strain BALB/c
A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;14-59/Domain: immunoglobulin homology (fragment) <IMM>
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C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C;Accession: S36381; S33396
R;Ansell, K.H.
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A;Cross-references: EMBL:X73011; NID:g295878; PIDN:CAA51497.1; PID:g939940 R;Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M. Eur. J. Immunol. 23, 206-211, 1993 A;Title: Optimization of primers for cloning libraries of mouse immunoglobulin genes usi A;Reference number: S33391; MUID:93122092 A;Accession: S33397
                                                                                                                                                                                                                                                                                                            A; Reference number: A; Accession: S36382
                                                                                                                                                                                                                                                                                                                                        submitted to the EMBL Data Library, April 1993 A; Reference number: S36376
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A; Residues: 1-60 < ANS>
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87.5%;
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Pred. No.
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Pred. No. 5
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RESULT
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A;Residues: 1-33 <KET>
A;Cross references: EMBL:x73011
A;Experimental source: strain BALB/c
A;Experfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
C;Reywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-82 <SAN>
A;Cross-references: GB:M26996
A;Note: the sequence shown differs from the
C;Superfamily: immunoglobulin V region; immu
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                              Ig heavy chain precursor V-III region (Ab21) - human
C; Species: Homo sapiens (man)
C; Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-May-1997
                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                     J. Immunol. 142, 4054-4061, 1989
A;Title: Nucleotide sequences of eight human natural autoantibody V-H regions reveals
A;Reference number: A92830; MUID:89235232
A;Accession: C34964
                                                                                                                                                                                                                                                                                                                                                                                C;Accession: C34964 P.; Thomas, J.W.; Notkins, A.L.; Capra, J.D.
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Copyright (c) 1993 - 2000 Com
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PIR; A02061; AlHUZP.
HSSP; P01772; ZIG2.
InterPro; IPR003006; -.
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
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SEQUENCE 116 AA; 12582 MW;
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SEQUENCE FROM N.A. MEDLINE-81013937; PubMed=6251474; Bernard O., Gough N.M.;
                                                                                      Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
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PO18UA:
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
IG HEAVY CHAIN V-III REGION HPC76 (FRAGMENT).
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p01778;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION ZAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=74142702; PubMed=4522793; Capra J.D., Kehoe J.M.; "Variable region sequences of five of the VH3 subgroup: definitive ide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypervariable regions.";
Proc. Natl. Acad. Sci. U.S.A. 71:845-848(1974).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGA1 MYELOMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HV25_MOUSE
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HV01_RAT
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                                                                                                             Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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NON_TER
SEQUENCE
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-I- MISCELLANEOUS: THE SEQUENCE OF THE FIRST 197 RESIDUES OF THE CREGION WAS ALSO DETERMINED & DIFFERS IN ONLY 3 POSITIONS FROM TICORRESPONDING PORTION OF THE MOUSE MOPC 104E MU CHAIN.

PIR; A02074; MHMS76.
InterPro; IPR003006; -.
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SEQUENCE
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MEDLINE-78158406; PubMed-417344;
Vrana M., Rudikoff S., Potter M.;
Vocamero variation among heavy chains
                                                                     MOUSE
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION A4.
                 21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION U61.
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Mammalia; Eutheria;
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  Eukaryota;
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Immunoglobulin V region.
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Mammalia; Eutheria;
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PIR; B93818; AVMS61.
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Proc. Natl. Acad. Sci. U.S.A.
Proc. Natl. Acad. Sci. U.S.A.
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Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains from inulin-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEMOLINE=78158406; PubMed=417344; MEDLINE=78158406; PubMed=417344; Vrana M., Rudikoff S., Potter M.; Sequence variation among heavy chains from inulin-binding
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION E109.
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NCBI_TaxID=10090;
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Pfam; PF00047; ig; 1.
Immunoglobulin V region.
DISULFID 22 98
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Pfam; PF00047; 1g; 1.
Immunoglobulin V region.
DISULFID 13 113
NON_TER 13 113
SEQUENCE 113 AA; 12732 M
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Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
-i- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYEI
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Vrana M., Rudikoff S., Potter M.;
"Heavy-chain variable-region sequence
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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InterPro; IPR003006; -.
Pfam; PF00047; ig; 1.
Immunoglobulin V region.
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION J606.
                                                                                                                                                                                                                                                           MEDLINE-82099361; PubMed-6798111;
Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
binding proteins";
J. Immunol. 128:302-307(1982).
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Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1996 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V REGION AMPC1.
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IDENTICAL.

PIR; A02048; H3HUTL.

Interpro; IPR003006; -.

Pfam; PF00047; 19; 1.

Immunoglobulin v region.

115 115

TAN TER 15 AA; 12356 MW;
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Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
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                                                                                              Wang A.-C., Wang I.Y., Fudenberg H.H.;
"Immunoglobulin structure and genetics. Identity between variable regions of a mu and a gamma2 chain.";
J. Biol. Chem. 252:7192-7199(1977).
-i- MISCELLANBOOIS: THE SEQUENCES OF THE V REGIONS OF THE HEAVY CHAINS OF THE AND IGGZ ISOLATED FROM A SINGLE PATIENT WITH BICLONAL GAMMOPATHY ARE IDENTICAL. THEIR LIGHT CHAINS ARE APPARENTLY ALSO
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Pfam; PF00047; ig; 1.
Immunoglobulin V region.
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The complete V domain amino
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
15 HEAVY CHAIN V-III REGION W3082.
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21-JUL-1986 (Rel. 01, Last sequence update).
15-JUL-1999 (Rel. 38, Last annotation update)
IG HEAVY CHAIN V-III REGION TIL.
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RESULT 13
HV3R.HUMAN STANDARD; PRT;
ID HV3R.HUMAN STANDARD; PRT;
AC P01779;
AC P01779;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1996 (Rel. 01, Last sequency
DT 15-JUL-1999 (Rel. 38, Last annotaty
DE IG HEAVY CHAIN V-III REGION TUR.
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HV36_MOUSE
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-82059449; PubMed-6795591;
Ollo R., Auffray C., Sikorav J.-L., Rougeon F.;
"Mouse heavy chain variable regions: nucleotide sequence of germ-line VH gene segment.";
Nucleic Acids Res. 9:4099-4109(1981).
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V REGION 441 PRECURSOR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or send an email to license@isb-sib.ch).
NCBI_TaxID=9606;
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NON_TER 116 116
SEQUENCE 116 AA; 12431 MW;
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                                                                                                                                                                                                                                                                                                                                              MEDILINE-75059123; PubMed-4803843; Mattanabe S., Barnikol H.U., Horn J., Bertram J., Hilschmann N.; Mattanabe S., Barnikol H.U., Horn J., Bertram J., Hilschmann N.; "The primary structure of a monoclonal IgM-immunoglobulin (mu-(macroglobulin Gal.), II: the amino acid sequence of the H-chain (mu-type), subgroup H III. Architecture of the complete IgM-molecule."; hoppe-Seyler's Z. Physiol. Chem. 354:1505-1509(1973).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE.
MEDLINE=74142702; PubMed=4522793;
Capra J.D., Kehoe J.M.;
"Variable region sequences of five human immunoglobulin heavy chains of the VH3 subgroup: definitive identification of four heavy chain
                                                                                                                                                                                                                                                                                   Submitted (JUN-1975) to the PIR data -1- MISCELLANEOUS: THIS MU CHAIN WAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypervariable regions.";
Proc. Natl. Acad. Sci. U.S.A. 71:845-848(1974).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGAl MYELOMA
                                                                                                                                                                                                                                                PIR; A02064; M3HUGL.
HSSP; P01772; 2IG2.
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION GAL.
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                                                                                                                                                                       "Amino acid sequence of a mouse myeloma immunoglobin heavy chain (MOPC 47 A) with a 100-residue deletion.";
J. Biol. Chem. 254:11418-11430(1979).
-!- MISCELLANEOUS: THIS ALPHA CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT CONTAINS ONE LIGHT AND ONE HEAVY CHAIN PER MOLECULE, LINKED BY A DISCULFIDE BOND. IN CONTRAST, NORMAL MOUSE IGA MOLECULES CONTAIN TWO LIGHT AND TWO HEAVY CHAINS AND LACK A LIGHT-HEAVY CHAIN DISCULFIDE BOND.
PIR; A02069; ALMS47.
                                                                                                                                   InterPro; IPR003006; -.
Pfam; PF00047; ig; 1.
Immunoglobulin V region.
                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1996 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
IG HEAVY CHAIN V REGION MOPC 47A.
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42
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4.152 Million cell updates/sec
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O73907 gallus gall
O35126 mus musculu
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099621 homo sapien
Q91hh3 arabidopsis
O9ydn2 aeropyrum p
O9jq12 chlamydia p
O9rsa9 deinococcus
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RESULT Q43751 ID Q AC Q DT 0: DT 0:

Q43751 PRELIMINARY; PRT; 325 AA. Q43751; 01-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)

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01-FEB-1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
CELLULASE (EC 3.2.1.4) (ENDOGLUCANASE) (ENDO-1,4-BETA-GLUCANASE)
(CARBOXYMETHYL CELLULASE).
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                                                             EMBL: X97189; CAA65827.1; -.
HSSP; P26221; 1TF4.
MENDEL: 7582; Cappan;1057;7582.
INTERPRO: IPRO01701; -.
INTERPRO: IPRO01701; -.
PFAM: PF00759; G1yco_hydro_9;
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Eukaryota; Viridiplantae; Embryc
Magnoliophyta; eudicotyledons; c
Solanales; Solanaceae; Capsicum.
NCBI_TaxID=4072;
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spe.
Magnoliophyta; eudicotyledons; core eudicots; Asteridae;
Solanales; Solanaceae; Capsicum.
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STRAIN-CV. LONGUM; TISSUE-LEAF ABSCISSION ZONES;
MEDLINE-96128016; PubMed-8541500;
Ferrarese L., Trainotti L., Moretto P., Polverir
                                                                                                                                                                                                                                                                                                                               Q96547
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Plant Mol. Biol. 29:735-747(1995)
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CELLULASE (E
                                                    PFAM; PF00759; Glyco_hydro_9; 1.
PROSITE; PS00698; GLYCOSYL_HYDROL_F9_2; UNKNOWN_1
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|GGLIVKPG 262
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(EC 3.2.1.4) (ENDOGLUCANASE) (ENDO-1,4-BETA-GLUCANASE)
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                               Glycosidase.
485 AA; 53631 MW;
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Am. Chem. Soc. Symp. Ser. 566:100-129(199.
-:- CATALYTIC ACTIVITY: ENDOHYDROLYSIS OF
LINKAGES IN CELLULOSE.
EMBL; U13055; AAA69909.1; -.
HSSP; P26221; TTF4.
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SIGNAL 1
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PROSITE; PS00698; GLYCOSYL_HYDROL_F9_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=CASTLEMART; TISSUE-PERICARP; MEDILINE-95086382; PubMed=7994180; Lashbrook C.C., Gonzalez-Bosch C., Bennett A.B.; "Two divergent endo-beta-1,4-glucanase genes exhibit expression in ripening fruit and abscising flowers,"; Plant Cell 6:1485-1493(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1996 (TrEMBLrel. 15, Last annotation update)
ENDO-1,4-BETA-GLUCANASE PRECURSOR (EC 3.2.1.4) (CELLULASE)
                                           Mammalia; Eutheria;
NCBI_TaxID=10118;
                                                                                        Eukaryota; Metazoa;
                                                                                                               Rattus
                                                                                                                                    PROLACTIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Magnoliophyta; eudicotyledons; Solanales; Solanaceae; Solanum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota;
    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=4081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lycopersicon esculentum (Tomato)
Eukaryota; Viridiplantae; Embryo
                                                                                                                                                                                                                                                                                                                                                        327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTERPRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ENDOGLUCANASE) (CARBOXYMETHYL CELLULASE).
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IPR001701; -.
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489 i
                                                                                                                                                      (TrEMBLrel.) (TrEMBLrel.)
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                                                                                                                                  MBLrel. 13, Created)
MBLrel. 13, Last seque
MBLrel. 15, Last annot
3 PROTEIN (FRAGMENT).
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                                                               Chordata;
Rođentia;
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                                                                                                                                                      Last sequence update)
Last annotation update)
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Pred.
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; FFADA8C4675F685F CRC64;
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                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                                  Sciurognathi;
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129(1994).
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49;
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O9UL91;
O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMUNOGLOBULIN HEAVY CHAIN VARIABLE
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01-mAY-2000 (TrEMBLrel. 13, Created)
01-mAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
IMUNOGLOBULIN HEAVY CHAIN (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Serum prolactin-binding protein (PRL-BP) of human identified as IgG."; C. R. Acad. Sci. III, Sci. Vie 317:293-298(1994). HSSP; P01789; IMCP. SEQUENCE 15 AA; 1469 MW; 35ED2512FF3FA369 CRC64
                                    SEQUENCE FROM N.A. MEDLINE-98277139; PubMed-9614934;
                                                                                                                                                                                                                                                                                                                                                "Human VH gene sequence.";
Submitted (NOV-1999) to the
EMBL; AB035268; BAA87067.1;
HSSP; P01772; 2FB4.
                 Young
                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-95094032; PubMed-8000909; Cohen H., Cohen O., Gagnon J.;
                          Wu X., Liu B.,
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                                                                  NCBI_TaxID-9606;
                                                                                                Homo sapiens (Human)
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         Myogin-reactive
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* AA; 1469 MW;
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Primates;
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87.5%;
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                          P.L.,
                                                                           Craniata; Vertebrata; Catarrhini; Hominidae
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No.
                          Kalis N.N.,
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No.
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                                                                           Hominidae;
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Q9PJT5;
01-OCT-2000
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                                                                                                                                       Chlamydia
Bacteria;
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NON_TER
SEQUENCE
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Q9UL72;
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NON_TER
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SEQUENCE
All
SEQUENCE FROM N.A.
STRAIN-MOPN / NIGG;
MEDLINE-20150255; PubMed-10684935;
MEDLINE-20150255; Sten C., Shen C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE=98277139; PubMed=9614934;

Wu X., Liu B., Van der Merwe P.L.,

Young D.C.;
                                                                                                                    Chlamydia muridarum.
Bacteria; Chlamydiales;
NCBI_TaxID=83560;
                                                                                                                                                                                                        HYPOTHETICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AF035042;
HSSP; P01772; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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7; Conserv
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118 AA;
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12843 MW; D0633949F2AC149D
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Bass S., Linher K., Weidman J., Khouri H., Craven B., Bowman C.,
Dodson R., Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G.,
Salzberg S.L., Eisen J., Fraser C.M.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AE002342; AAF39551.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-1998
01-AUG-1998
01-OCT-2000
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Kawarabayasi Y., Sawada M., Horikawa H., Haikawa Y., Hino Y., Yamamoto S., Sekine M., Baba S.-I., Kosugi H., Hosoyama A., N Sakai M., Ogura K., Otsuka R., Nakazawa H., Takamiya M., Ohfu Funahashi T., Tanaka T., Kudoh Y., Yamazaki J., Kushida N., O Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi K. Masuchi Y., Shizuya H., Kikachi H.; Masuchi Y., Shizuya H., Kikachi H.; Masuchi Y., Saizuya H., Kikachi H.; Tomplete sequence and gene organization of the genome of a hthermophilic archaebacterium, Pyrococcus horikoshii OT3."; DNA Res. 5,55-76(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-AUG-1998 (TYEMBLIFE). 07. Created)
01-AUG-1998 (TYEMBLIFE). 07. Last sequence update)
01-CCT-2000 (TYEMBLIFE). 15. Last annotation updat
HYPOTHETICAL 28.7 KDA PROTEIN PH0260.
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PFAM; PF00753; lactamase_B; l.
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NCBI_TaxID=53953;
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6; Conservative
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horikoshii OT3.";
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Salzberg S.L.,
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Submitted (JUL-1999) to the EMB EMBL; AJZ48283; CAB49028.1; -
Hypothetical protein.
SEQUENCE 272 AA; 30372 MW;
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073907;
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01-AUG-1998
01-MAY-2000
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Q9V2H0;
Q1-MAY-2000
Q1-MAY-2000
Q1-JUN-2000
PROSITE; PS00027; HOMEOBOX_1; 1
PROSITE; PS50071; HOMEOBOX_2; 1
HOMEOBOX; DNA-binding; Nuclear
SEQUENCE 323 AA; 36034 MW;
                                                                                                                                                      Mech. Dev. 56:151-163(1996).
-!- SUBCELLULAR LOCATION: NU
EMBL; X97667; CAA66257.1; -.
HSSP; P23441; 1FTT.
                                                                                                                                                                                                                                                                      MEDLINE-96391182; PubMed-8798155;
Buchberger A., Pabst O., Brandt T., Seidl K., Arnold H.H.;
Buchberger A., Pabst O., Brandt T., Seidl K., Arnold H.H.;
"Chick NKX-2.3 represents a novel family member of vertebrate
homologues to the Drosophila homeobox gene tinman: differential
expression of cNKX-2.3 and cNKX-2.5 during heart and gut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gallus gallus (Chicken).
Gallus gallus (Chicken).
Finitaryorta; Metazoa; Chordata;
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NCBI_TaxID=29292;
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Shen Y., Rowland K., Liu W., Perez L., Ding Y., Haywood M., Jain A.,
Leal B., Logan O., Ngyyen V., Savage L., Shen H., Worley K., Chen E.,
Forcum J., Arenson A.D., Chiu M.W., Gorrell J.H., Brundage E., Dl W.,
Chinault C., Nelson D., Gibbs R.A.;
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AC002397; AAC36003.1; -.
MGD; MGI:104725; Drpla.
INTERPRO; IPR0122; ATROPHIN.
SEQUENCE 1175 AA; 123722 MW; 8BEFFAB75DDC0F36 CRC64;
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in the murine gene.";
Genomics 40:205-207(1997).
EMBL; D87744; BAA13450.1;
MGD; MGT:104725; Drpla.
                                                                     MEDLINE-97224514; PubMed-9070948;
Oyake M., Onodera O., Shiroishi T., Takano H.,
Komonami R., Moriwaki K., Ikeuchi T., Igarashi
                                                                                                                                         Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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Ansari-Lari M.A., Oeltjen J.C., Schwartz S., Zhang Lu J., Gorrell J.H., Chinault A.C., Belmont J.W., M Gibbs R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                          "Molecular cloning of atrophy (DRPLA) cDNA:
                                                                                               SEQUENCE FROM N.A. MEDLINE-97224514;
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                                                                                                                        NCBI_TaxID=10090;
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MEDLINE-97228904; PubMed-9074930;
Ansari-Lari M.A., Shen Y., Muzny D.M., Lee W., Gibbs R.A.;
**Large-scale sequencing in human chromosome 12p13: experimental computational gene structure determination.";
Genome Res. 7:268-280(1997).
GMBL; 047924; CAB3565.1; -.
INTERPRO; IPR002951; -.
INTERPRO; IPR002951; -.
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Genome Res. 6:314-326(1996).
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Mammalia;
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PRINTS; PR01222; ATRO
SEQUENCE 1175 AA;
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"A gene-rich cluster between the CD4"
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Ansari-Lari M.A.,
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US-08-448-199-16
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US-08-652-558-42
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Sequence 4, Appli	Sequence 48, Appl	Sequence 31, Appl	Sequence 48, Appl	Sequence 37, Appl	Sequence 116, App		Sequence 21, Appl	ζ.		Sequence 17, Appl		Sequence 7, Appli	Sequence 75, Appl	Sequence 75, Appl	Sequence 7, Appli	•	Sequence 119, App

ALIGNMENTS

Title:

MOLECULE TYPE: peptide; HYPOTHETICAL: NO US-08-859-931A-4 TELEFAX: (202) 233 ... INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS: LENGTH: 20 amino acids TYPE: amino acid TOPOLOGY: linear ropology: linear ; Sequence 4, Application US/08859931A ; Patent No. 5945510 ; GENERAL INFORMATION: RESULT 1 US-08-859-931A-4 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/859,931A FILING DATE: 21 MAY 1997 CLASSIFICATION: 514 CLASSIFICATION: 514 CLASSIFICATION: 514 TELEPHONE: (202) 293-7060 ATTORNEY/AGENT INFORMATION: NAME: KIT, GOTCHON REGISTRATION NUMBER: 30,764 REFERENCE/DOCKET NUMBER: A-6901 NUMBER OF SEQUENCES: 9 CORRESPONDENCE ADDRESS: ADDRESSEE: SUGHRUE, TITLE OF INVENTION: TITLE OF INVENTION: APPLICANT: STATE: I STREET: 2100 Pennsylva CITY: Washington, D.C. INFORMATION: D.C. 2E: SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W., Suite 800 U.S.A. FASANO, Alessio SUBSTANTIALLY PURE ZONULIN, PHYSIOLOGICAL MODULATOR OF MAMMALIAN TIGHT JUNCTIONS

1 GGLLVQPG 8

Conservative

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Score 39; DB 2 Pred. No. 0.28; Mismatches

Length 20; Indels

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FILING DATE: 27-MAR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP
FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
REGISTRATION NUMBER: 29.06
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SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                 TITLE OF INVENTION: METHOD FOR STIMULATING PRODUCTION OF TITLE OF INVENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH TITLE OF INVENTION: VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 06501/004001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                    APPLICANT:
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APPLICANT: Matsuda, Fumihiko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELLEFAX: ULLEFAX: 200154
                                                                                                                   ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 01, 1906
                                                                                                                                                                                                                                                                                                                         27 GGALVQPG 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
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COUNTRY:
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                                                               ADDRESSEE:
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              Los Angeles
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                                            E: Spensley Horn Jubas & Lubitz
1880 Century Park East - Suite 500
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SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
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87.5%;
                                                                                                                   THEREOF
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Pred. No.
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Best Local Similarity
"hes 7; Conserv
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: SILVERMAN TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION:
TELEFAX: (619) 455-5110 INFORMATION FOR SEQ ID NO:
                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/
FILING DATE: 29-OCT-1993
                                                                                                                                                                                                                                                                                                                      STREET: 1000 CITY: Los Angeles STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Howells, Stacy L.
REGISTRATION NUMBER: 34,842
REFERENCE/DOCKET NUMBER: FD.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619,455-5100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US93/10555 FILING DATE: 29-OCT-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                   REFERENCE/DOCKET NUMBER: FI
                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: Howells, Stacy L.
REGISTRATION NUMBER: 34,
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 90067
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                                                                                                                                         CLASSIFICATION:
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                                  619) 455-5100
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METHOD FOR STIMULATING PRODUCTION OF
                                                                                                                                                                              PCT/US93/10555
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Pred. No.
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LENGTH:

123 amino acids

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RESULT 6
US-08-434-702-4
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SOFTWARE: FASTSEQ for Windows Version 2.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/5.7

FILING DATE: 27-M.7
                                                                                                                                      Matches
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Patent NO. 6096878
GENERAL INFORMATION:
APPLICANT: HONJO, Tasuku
APPLICANT: Matsuda, Fumihiko
TITLE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE
TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
NUMBER OF SEQUENCES: 145
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson, P.C.
                                                                                                                                                                Query Match
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Matches 7; Conservative
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                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 118 amino acids
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TELEPHONE: 617-542-5070
TELEFAX: 617-542-8906
                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
REGISTRATION NUMBER: 29,0
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                              27
                                                                                                                                     Local Similarity
les 6; Conserv
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ZIP: 02110-2804
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                                                                                                        1 GGLLVQPG B
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75.0%;
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RESULT 7
US-08-475-000-16
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Best Local Similarity
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; MOLECULE TYPE:
US-08-434-702-4
                                                                                                                                               Sequence 16, Application US/08475000 Patent No. 5811267
                                                                                                               GENERAL INFORMATION:
APPLICANT: RING, DAVID B.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (415) 543-50 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 07/687,466
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/7-
FILING DATE: 22
                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: CHIRON CORPORATION
                                                                               TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 20-APR-1990 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 0 FILING DATE: 07-JUL-1994 PRIOR APPLICATION DATA:
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                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                           327 GGLIVKPG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Bastian, Kevin L. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 04-MAY
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OPERATING SYSTEM:
SOFTWARE: Patent:
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ZIP: 94105-1492
                STREET:
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Emeryville
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                  INTELLECTUAL PROPERTY
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Fischer, Robert L.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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04-MAY-1995
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75.0%;
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Pred. No.
                  R440 - P.O. BOX 8097
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

COUNTRY: USA ZIP: 94662-8097

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US-08-475-000-16
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: RING, DAVID B.
                                                                                                                                   SOFTWARE: PatentIn Release CURENT APPLICATION UMBER: US/08/FILING DATE: 07-JUN-1995 CLASSIFICATION: 424 ATTORNEY/AGENT INFORMATION: NAME: SAVEREIDE, PAUL REGISTRATION NUMBER: 36,91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (510) 655-354 INFORMATION FOR SEQ ID NO:
                                                  TELEFAX: (510) 655-3542
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                   SEQUENCE CHARACTERISTICS:
                                                                                                REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                STREET: INILL_
CTTY: Emeryville
                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                 ENGTH:
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amino acid
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                   119 amino acids
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                                                                                    (510) 601-2585
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75.0%;
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Best Local Similarity
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US-08-484-508-16
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Best Local Similarity
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                                                                                                                   US-08-331-398A-66
                                                                                                                                                                                                                                                                                                                 ; MOLECULE TYPE: protein US-08-484-508-16
                                                                                    Sequence 66, Application US/08331398A Patent No. 5608039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16, Applicat Patent No. 5948647 GENERAL INFORMATION:
                                                                         GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 07-JUN-1995
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: SAVEREIDE, PAUL
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,508
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY - R440, P.O. BOX 8097
                                                        APPLICANT:
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                                           APPLICANT:
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APPLICANT:
               APPLICANT:
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8 GGVLVRPG 15
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ZIP: 94662-8097
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Willingham,
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                            FitzGerald,
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          Brinkmann, Ulrich
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                                                                                                                                                                                                                           Patent No. 5861155
GENERAL INFORMATION:
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 66
SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
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APPLICATION NUMBER: US 07
FILING DATE: 12-OCT-1990
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CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: US 07/767,331
                               COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc
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REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                      CORRESPONDENCE ADDRESS:
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                                                                                                                                                                     UMBER OF SEQUENCES:
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
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                                                                                                           CITY:
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                                                                             COUNTRY:
                                                                                                                                       ADDRESSEE:
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One Market Plaza, Steuart Street Plaza
                                                                             USA
                                                                                                                        75 STATE STREET, 231
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                               inch diskette,
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87.5%;
   PC-DOS/MS-DOS
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                               1.4 Mb storage
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Query Match
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US-08-331-397B-66
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INFORMATION FOR SEQ ID NO:
                                                                                                                              APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
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TELECOMMUNICATION INFORMATION:
                               REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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TITLE OF INVENTION:
TITLE OF INVENTION:
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APPLICATION NUMBER:
                                                                                                              FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                            NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
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                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                   California
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One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15 amino acids
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SEQ ID NO:
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87.5%;
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Specific Antibody Fragments, Fusion Protein
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ER: 95,497-L
                                                                 015280-126120US
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Pred. No. 1
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Query Match
Best Local Similarity
"atches 7; Conserv
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MEDIUM TYPE: Floppy disk
CCMPUTER: IBM_PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/759,804A
FILING DATE: 03-DEC-1996
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 65, Application US/08759804A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                         TELEFAX: (415) 576-0300
NFORMATION FOR SEQ ID NO: (
                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                           TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                               FILING DATE: 30-SEP-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/331,398
FILING DATE: 28-CCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Pai, Lee
TITLE OF INVENTION: Tumor-Specific Antibody Fragments,
TITLE OF INVENTION: Fusion Proteins, and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Willingham, Mark
APPLICANT: FitzGerald, David J.
APPLICANT: Brinkmann, Ulrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                   "HURNEL FOUR ELIEN L. REGISTRATION NUMBER: 32,762 NUMBER: 015280-126140US
                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: Two Embarcac
CITY: San Francisco
                                                                                                      STRANDEDNESS
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
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                                                                                                                                         15 amino acids
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87.5%;
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Pred. No. 1
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RESULT 15
US-08-401-908-14
; Sequence 14, Application US/08401908
; Patent No. 5684146
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Query Match

81.0%;

Score 34;

DВ

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Query Match
Best Local Similarity
Thes 7; Conserve
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; MOLECULE TYPE: peptide
US-08-331-398A-55
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Matches 7; Conservative
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                                                                                                                                                                                                                                                        TELEPHONE: (415) 543-9600
TELEPAX: (415) 543-9600
INFORMATION FOR EGO ID NO: 55:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94105-1492
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION UMBER: US/08/331,398A FILING DATE: 28-OCT-1994
                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                        STRANDEDNESS
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                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
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                                    1 GGLLVQPG 8
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8 GGGLVQPG 15
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                                                                                                                                                                                                                                             18 amino acids
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FitzGerald, Davi
                                                                      Conservative
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                                                                                    81.0%;
87.5%;
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Pred. No. 2
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                                                                      Mismatches
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                                                                                                    Length 18;
                                                                    Indels
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GENERAL INFORMATION:
APPLICANT: YOShinobu OKUNO et al.
APPLICANT: YOShinobu OKUNO et al.
TITLE OF INVENTION: A DNA WHICH CODES FOR THE VARIABLE REGION OF
TITLE OF INVENTION: ANTIBODY
NUMBER OF SEQUENCES: 36
CORRESPONDENCE ADDRESS:
ADDRESSEE: Wenderoth, Lind & Ponack
STREET: 805 Fifteenth Street, N.W., #700
CITY: Washington
STAYE: D.C.
COMPUTER BASHINGTON
COMPUTER: D.S.A.
TIP: 20005
COMPUTER: DISKETTE, 3.5 inch, 1.44 mb
                                                                                                                                           Ŷ
Search completed: June 13, 2001, 14:16:37 Job time: 498 sec
                                                                                                        В
                                                                                                                                                                                                                                                                                                  LENGTH: 18
TYPE: manino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE: heavy chain of C179
US-08-401-908-14
                                                                                                                                                                                      Query Match 81.0
Best Local Similarity 87.5
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM COMPORTIBLE

COMPUTER: IBM COMPORTIBLE

OPERATING SYSTEM: MS-DOS

SOFTWARE: WORDPETECT 5.1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/401,908

FILING DATE: MARCH 10, 1995

CLASSIFICATION DATA:

APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE:

FILING DATE:

APPLICATION NUMBER:

FILING DATE:

APPLICATION NUMBER:

FILING DATE:

APPLICATION NUMBER:

FILING DATE:

APPLICATION NUMBER:

FILING DATE:

TELECOMMUNICATION INFORMATION:

TELEPHONE: 202-371-8850

TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                               TELEX:

INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
FENGTH: 18
                                                                                                   1 GGLLVQPG 8
|| |||||
8 GGGLVQPG 15
                                                                                                                                                                                        81.0%; Score 34; DB 1;
87.5%; Pred. No. 2.1;
tive 0; Mismatches
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